

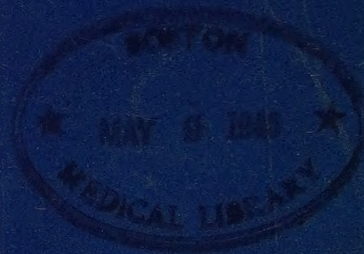
MEDICAL RECORD

CLEAR knowledge of natural science must be acquired, in the first instance, through mastery of medicine alone.

—Hippocrates

APRIL 1946

Vol. 159, No. 4



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no more than prepara-
tions of whole digitalis
leaf.

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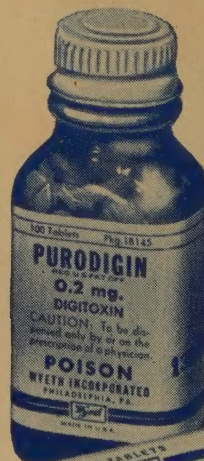
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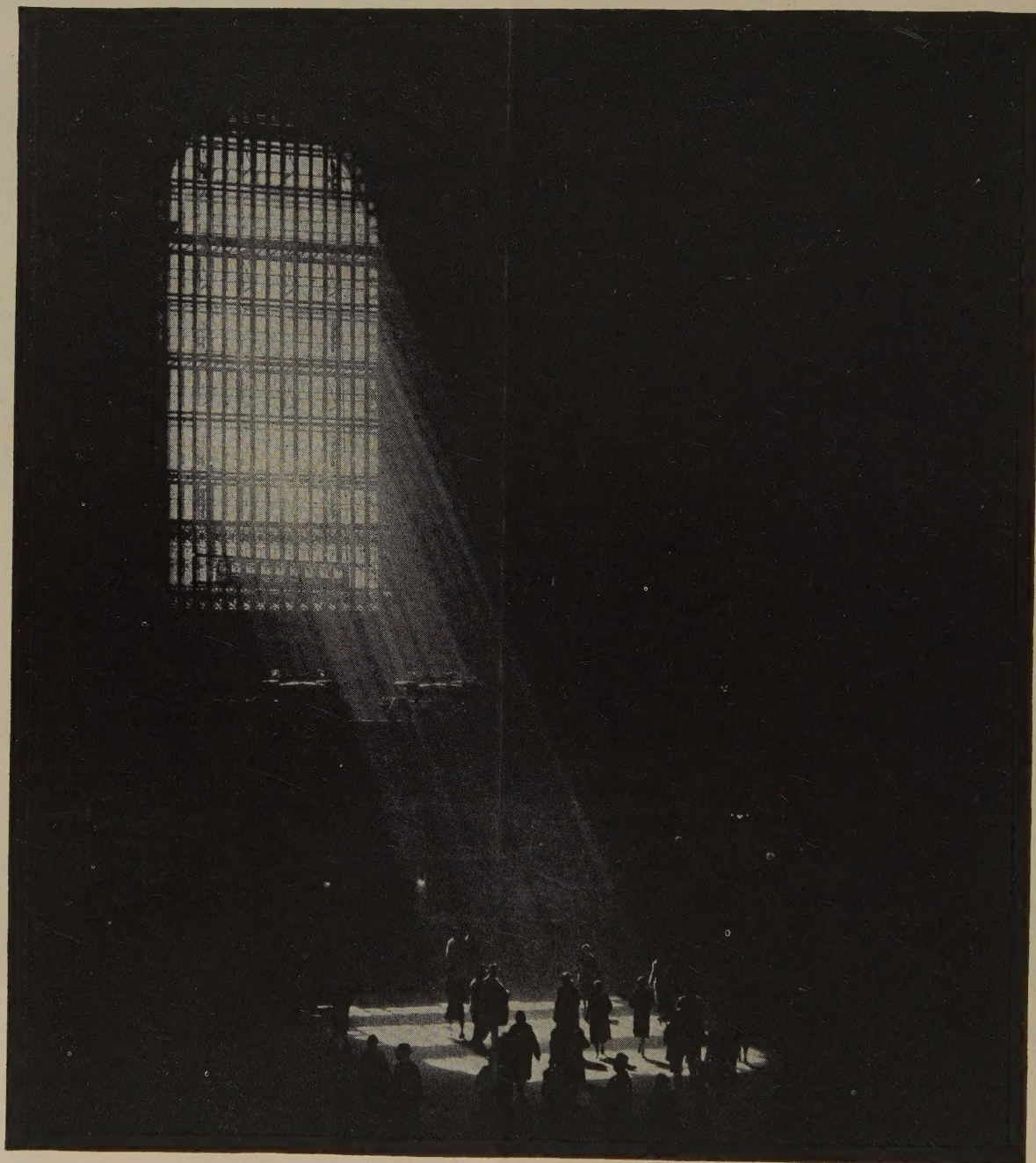
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APRIL 1946

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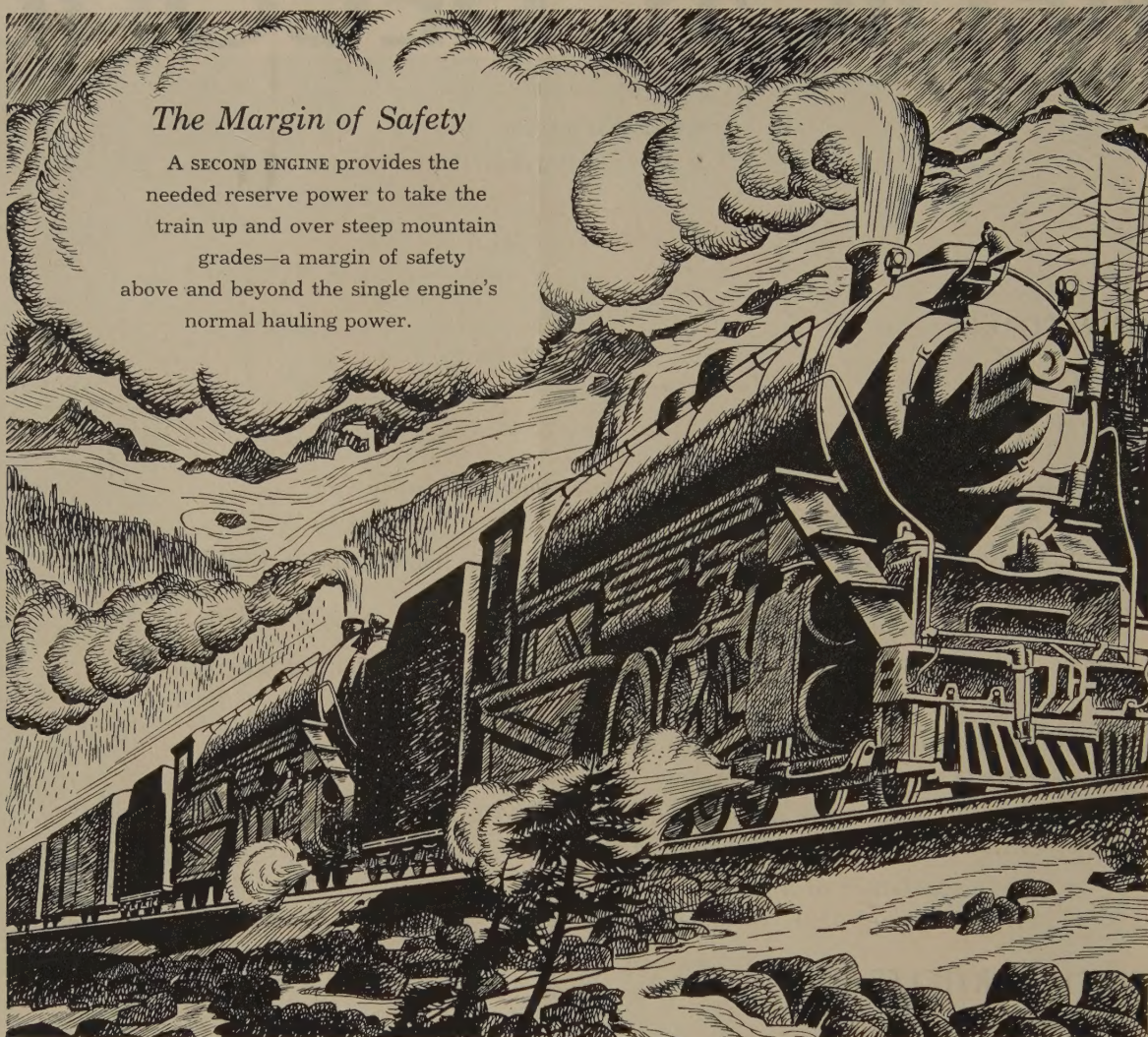
Entered as Second Class matter at the Post Office at Rutherford, N. J., under the Act of March 3, 1879. Office of Publication, 210 Orchard Street, East Rutherford, N. J. Editorial and Executive Offices, 215 Fourth Avenue, New York 3, N. Y.

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Advantages of An Army Career for Doctors

The advantages of an Army career for doctors and other officers who are appointed members of the Medical Department under the new law authorizing additional officers for the Regular Army are stressed by Major General Norman T. Kirk, Surgeon General of the Army. Under the terms of this recently enacted law, doctors who apply for appointment and meet the requirements will be given commissions in the grades of first lieutenant, captain and major. The Army expects to attract a competent staff of doctors who will maintain the high standards which have prevailed during the war in the care of the sick and wounded because there are definite advantages for the professional man who elects to serve in the Army. A professional career offering broader possibilities in a larger field than the practice of the average civilian doctor affords is open to the Regular Army Medical Corps Officers. The Army is conducting residency-type training which will allow and encourage doctors to advance in their professional qualifications. Opportunities for administrative and field training will also be continued.

The training and assignments of Army doctors have been arranged in a way to help them obtain board certification for specialties from recognized civilian specialty boards. Army fellowships, residencies and special courses are in operation to further this program designed to aid in advancing the personnel of the

Medical Department from a professional standpoint. As facilities and opportunity permit, training in recognized civilian institutions will be expanded.

The security assured the Army doctor will appeal to many professional men, General Kirk explained. There is regular income and regular promotion and also retirement pay, which amounts to seventy-five percent of base plus longevity pay for the doctor who has served thirty years or who has reached the statutory age limit. If a man is retired for physical disability at any time during his Army career, he will also receive seventy-five percent of his pay at time of retirement for the rest of his life. The Army doctor and his family are also eligible for medical care and hospitalization. The opportunity to serve in foreign countries will appeal to those who are interested in travel. Wherever there are American forces overseas there will be members of the Medical Department to look after the health of the Army.

Under the new law, any doctor, physically and professionally qualified, who has been on active duty in the Army since Pearl Harbor, and who is under forty-five years of age, is eligible for appointment in the Regular Army, unless he has been separated from the service under other than honorable conditions. His grade will be determined by his age, within limits, or his length of service as a commissioned officer in the Army, whichever is the greater factor. No officer will be appointed in a grade higher than the one which he held in war time.

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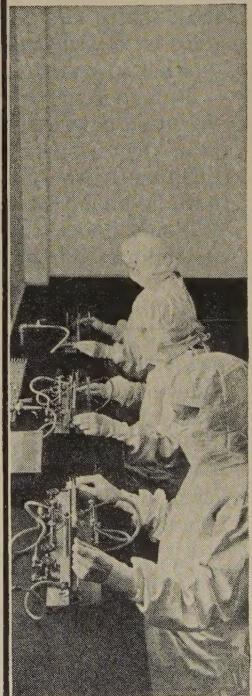
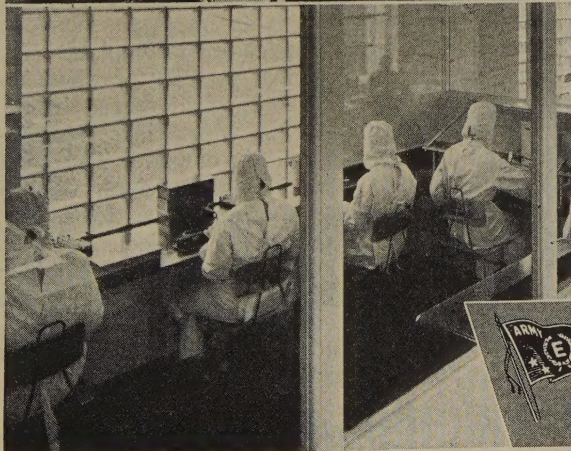
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Open Forum

The Body's Building Blocks

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We have heard so much about vitamins and minerals in recent years that proteins and energy food have become almost too old-fashioned to mention. Yet what we do not know about proteins, after many long years of painstaking research in the laboratories of many countries, would fill a library.

The body must have energy foods to keep its engine running. It must have proteins to repair its worn-down parts. In a well-balanced diet proteins are not burned for energy. They are to refashion that curious basic material of which all living things are made, protoplasm, and about protoplasm itself our information is incomplete.

Proteins are curious complex chemicals. We do not yet know exactly how the proteins we eat are converted into protoplasm. That they split up into twenty-odd simpler compounds, the amino acids, is well known. The course of these acids through digestion can be followed, until the period of their transition from nonliving to living tissue. There the curtain of mystery descends.

Proteins are our most costly and indispensable food-stuffs, and their physiological and monetary values are closely related. While the body itself can make some of the amino acids which compose proteins, others it cannot synthesize, and these tend to be the most scarce and the most costly. The make-up of proteins is so varied that they differ enormously from one another in constituents and in food value.

But, in general, the main thing we know about the digestion of proteins is that the body tears them down into their constituent building blocks before manufacturing protoplasm from them. Moreover, we know nothing about the structure of living protoplasm either. We only know what it becomes after it is dead.

Undoubtedly protoplasm varies not only from species to species but among individuals. It is unlikely that the lean meat—i.e., muscular tissue—of your body is identical in composition with that of any other person living or dead, so many billions of combinations of a score or more amino acids are possible.

Presumably the best protein for you to eat would be that supplied by your own monozygotic twin. But you may have no such twin. You may not have any twin at all. Even if you have a twin, it is doubtful whether you could arrange to use him for lunch. There are said to be laws against that sort of thing. If you did do that, however, even your twin's protein would undoubtedly be broken down and digested before your body built it into its own muscular tissue and protoplasm.

Obviously, then, you will have to find something else to eat. Milk proteins are so constituted by nature, that the infant can form the maximum amount of tissue from them with minimum consumption of protein. Milk may contain the most perfect proteins, but you will probably develop an inordinate appetite for meat and then go around complaining because you

can't get as much of it as you would like. Why do you want meat anyway?

Well, there are good proteins and there are poor proteins. The former contain considerable quantities of those vital amino acids our bodies cannot synthesize. The latter often lack essential amino acids and contain such poor mixtures of these building blocks as to be almost lop-sided.

Furthermore, the question of cooking enters into any discussion of protein digestibility. There was a time when we supposed that raw egg white contained easily digestible proteins. Actually it was neither very digestible nor nutritious. When coddled, however, egg white is both easily digestible and nourishing. Cooking transforms its protein, yet egg-yolk proteins are still superior to those of the white.

For present purposes, however, egg white or lean beef may be regarded as relatively pure protein. About eighteen percent of our entire body consists of protein. Our hair, nails, skin, and muscle tissues are almost pure protein. No other food element can take the place of protein which is, if anything, more basically important than even minerals or vitamins, for life cannot start in lack of it.

While the wearing down of our tissues with violent exercise is by no means so great as used to be thought, the tissues containing proteins do constantly undergo disintegration. This becomes much greater during wasting diseases or in pregnancy. We then have special needs for protein.

Though protein constitutes the great bulk of the nitrogenous constituents of our food, it rarely occurs in a natural or free state. In ultimate analysis, most proteins consist of carbon, hydrogen, nitrogen, oxygen, and sulphur, but proteins differ widely in nutritive value. Those which lack the above-mentioned dietary-essential amino acids are regarded as incomplete or deficient.

Life and health cannot be maintained on a diet of deficient proteins, of which gelatin offers a convenient and common example. No matter how many vitamins or mineral elements the diet supplies, and no matter how many commercially "enriched" foods we eat, satisfactory growth and well-being cannot occur in lack of nutritionally essential amino acids.

We hear a great deal these days about "enriched" flour and cereals. We might conclude from some of the advertisements we see that this "enrichment" transforms them into complete foods. Actually it does not and cannot. The cereals have an important place in our diet, but their basic proteins are incomplete.

Gladiin, one of the principal proteins of wheat, is deficient in the important amino acid named lysine. Zein, the principal protein of corn, lacks two important amino acids, hence is incomplete. The chief protein of the white bean is also deficient. Gelatin actually lacks four or five important amino acids.

Hence these proteins have to be supplemented with others, notably those of meat, milk, and cheese, which contain richer mixtures of the more necessary amino acids. Fortunately these days when meat and cheese are so difficult to procure, we can find some other foods which perform this supplementary process admirably.

While the addition of synthetic vitamins and of minerals to deficient proteins leaves them still de-

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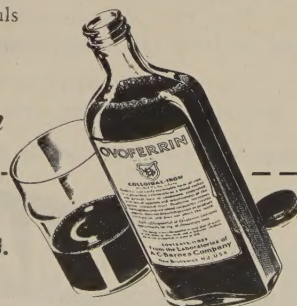
CHILDREN: One to 2 teaspoonfuls 4 times daily in water or milk.

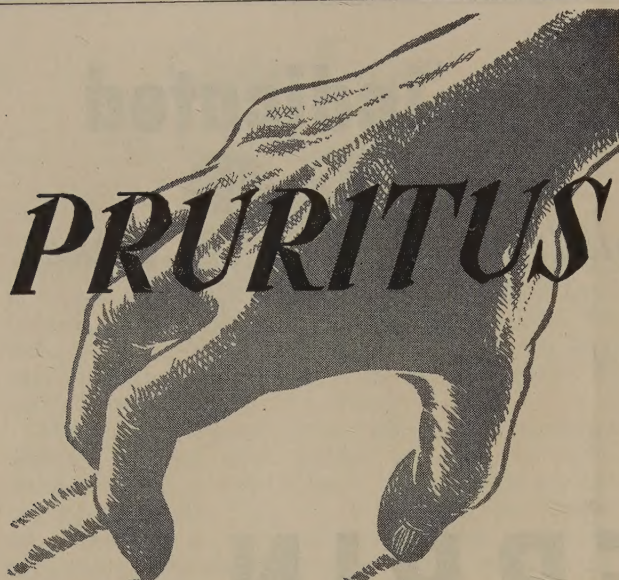
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ficient—even when eight vitamins and twelve mineral elements are used—the growth-promoting value of white flour can be increased twofold by the addition of ten parts of peanut or of cottonseed flour. If ten parts of soybean flour are added to ninety of wheat flour, the growth-promoting value of the latter is increased fourfold. These additions complete or supplement the proteins.

For there is a curious relationship between proteins. It seems to prove that the whole can be more than the sum of the parts. D. Breese Jones and his associates of the Department of Agriculture have done much work on this subject. A long line of protein research also carries down from W. O. Atwater, through Osborne and Mendel, to Hubert Vickery in the Agricultural Experiment Station at New Haven, Conn.

Jones and his colleagues have found that bread made from wheat flour mixed with soybean, peanut, or cottonseed flour is far more nutritious than bread made from any one of these flours alone. They have also found that the addition of only five parts of meat, milk, egg or other animal protein will increase the growth-promoting value of white flour fivefold.

In general, the proteins of meat, milk, eggs, fish, and fowl are more complete while those of cereals and legumes are usually deficient. Yet the defatted protein of corn or of wheat-germ is so high in value as to make these very excellent foods. Wheat-germ protein is superior to corn-germ, and is about equal to milk protein in food value.

For that matter, certain grasses contain proteins of exceptionally high nutritive value. This has been found true of grass mowed on golf putting greens, the proteins of which equal those of skimmed milk in food value. However, we are unlikely to start emulating Nebuchadnezzar, the Chaldean king of Babylon who took to a grass diet when the Lord got too hot on his trail of iniquity.

This brings us back to cooking. The proteins of the bean family become far more digestible cooked than when raw. On the other hand, the reverse is true of the protein of peas, and the more nearly raw peas are eaten the more digestible the protein is.

Human beings require about two and one-third ounces of good protein, or the supplemented equivalent, in their diet daily. The principal thing is to have the dietary-essential amino acids present in sufficient quantity to provide good body-building material.

That protein must be there and always remember you cannot atone for its absence by taking vitamin and mineral pills. Nothing can replace protein in the diet. The old theory that eating protein excessively sent up the blood pressure or destroyed the kidneys is no longer held valid. However, if you are going to overeat, it is wiser to overeat fat and carbohydrates.

The waste products from their digestion, being composed almost entirely of carbon, hydrogen, and oxygen, are mainly gaseous and are easily expelled by the lungs. It is more of a job for the body to dispose of wastes from protein digestion and work for more organs is involved.

It is perfectly all right for us to absorb and heed the newer knowledge of nutrition, and to be sure that we get ample vitamins and minerals in our diet. But the true facts about that basically indispensable and irreplaceable food element, protein, should never be forgotten.



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Stamina and strength, essential to a joyous, optimistic outlook, are vitally linked to the nutritional status, and will quickly wane if undernutrition is allowed to develop. Zestful living and boundless energy are hardly compatible with nutritional deficiencies.

For the below-par patient whose inadequate nutritional intake is the responsible factor, Ovaltine as a dietary supplement can make a real contribution toward assuring nutritional balance. A good source of high-quality pro-

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IRON.....	12.0 mg.	COPPER.....	0.50 mg.

*Based on average reported values for milk.

Burger Hospital, Basle, Switzerland

In the year 1842 the Swiss city of Basle opened the Burger Hospital in the former palace of the margrave of Baden. The institution occupied only a fraction of the huge area it now takes up. Since then the city has grown tremendously and the number of inhabitants has increased more than fivefold, i.e., to 161,400. Mere building additions became gradually impossible.

In 1917 the institution's head physicians made urgent requests for an entirely new structure. In order not to interfere with hospital functions they pleaded for a unit in the outskirts of the city, a building after the pavilion system. This new edifice did not materialize. There were several arguments against it, one of them being that the teaching of the medical faculty of Basle University relied in a large measure on the clinics. If the latter were located in a building outside of the city proper, the number of patients would be bound to decrease.

Thus the old area was retained. Four new building projects proved unsuccessful. However, before Christmas 1938 the fifth plan found the approval of the municipal and canonical authorities. The building appropriation requested, amounting to twenty-two and a half million Swiss francs, was granted and in 1939 a building commission was formed with Dr. Moser, director of the Burger Hospital, at the head. Contracts were concluded with the architectural concerns of Ernst and Paul Vischer, Hermann Baur, Bräuning, Leu and Dürig. Definite plans were ready, technical problems solved, and preliminary demolition work completed when World War II broke out.

Regardless of this crisis the courageous decision was made to build. Through the purchase of numerous old properties it was possible to widen the area in such a manner that the new hospital units could be completed without materially interfering with the functions of the institution.

The general building plan foresaw several construction stages. First, in 1940, a first-aid station with medical service for wounded victims of war came into being at a total expenditure of one million francs. Looking into the future, important purchases of necessary building materials were made immediately. Approximately seven million francs were spent for this purpose by the building management.

Mobilization of the Swiss citizen army and frontier occupation were responsible for considerable delays in the execution of the building program. Nevertheless, on October 4, 1941, the foundation stone was laid for the first principal units, comprising the huge main part of the new hospital, the so-called "House of Beds" and the "Treatment Building". On September 29, 1945, this gigantic project, executed during the war, was formally inaugurated. Despite the advance purchases of necessary building materials construction costs rose from the estimated twenty-two and a half million francs to thirty-three million francs.

The imposing main structure, erected as two parallel running units, has a length of 721½ feet and an inner court 131 feet wide. Five bridge-like connections form a convenient link between the "Treatment Building" in front and the "House of Beds" towering behind. The latter has a total height of 147½ feet, has 7 floors

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above the ground and two basement floors. Numerous interior stairs and express elevators accelerate communications.

Operating rooms, emergency rooms, clinics, all treatment rooms, laboratories, the administration and reception offices are housed in the "Treatment Building", which has three floors and two strikingly designed protruding auditoriums for lectures.

On the ground floor of the "House of Beds" are the installations for x ray, diagnosis and physical therapy, while the first, second, third and fourth floors contain wards for both men and women. A second medical and a second surgical section with its own operating rooms are featured on the fifth floor. On the sixth floor are rooms for two patients each and on the seventh are single rooms with balconies. The spacious roof terrace is arranged as a sun room for the patients and affords a marvelous view of the city of Basle and its environs.

All sick rooms face south, and the entire hospital is heated by steam according to the Critall system.

A special building houses the hospital kitchens. Here, a cleverly planned system permits the distribution of two thousand hot portions in seventeen various diets, five meals daily, within seventeen minutes from stoves to beds.

A building for patients suffering from contagious diseases forms part of the second construction stage, with completion due in the spring of 1946. After this the parts remaining of the old Burger Hospital will gradually be modernized.

ROBERT B. CHRIST

Suggestion in Medicine

To the Editor.—

I read The Medical Record with great interest but once in awhile I find a writer who disregards the facts and gives vent to his prejudices. Such is the case in an article by Dr. Samuel Kahn, on Suggestion in Medicine. Dr. Kahn says many things about suggestion with which no one can find quarrel, but when he places naturopathy as a suggestion cure he displays an utter lack of knowledge of the methods and results of this healing art.

Dr. Kahn ought to know that hydrotherapy, adjustments, manipulation, correct and scientific nutrition, colonic irrigations, etc., have definite and beneficial physiological effects. Medicine has neglected these important remedies in favor of drugs. That is why medical doctors see that naturopaths and chiropractors often obtain results where they have failed. But blinded by prejudice they are unable to see the truth and are unwilling to investigate; perhaps because they have a subconscious fear of finding something that contradicts many things they learned in the medical school.

If the medical doctors would observe the scientific spirit more religiously it would be much better for suffering mankind. They should learn that truth is often found in very strange places and that they can get much knowledge from naturopathy.

J. M. Martinez, N.D.
Miami, Fla.

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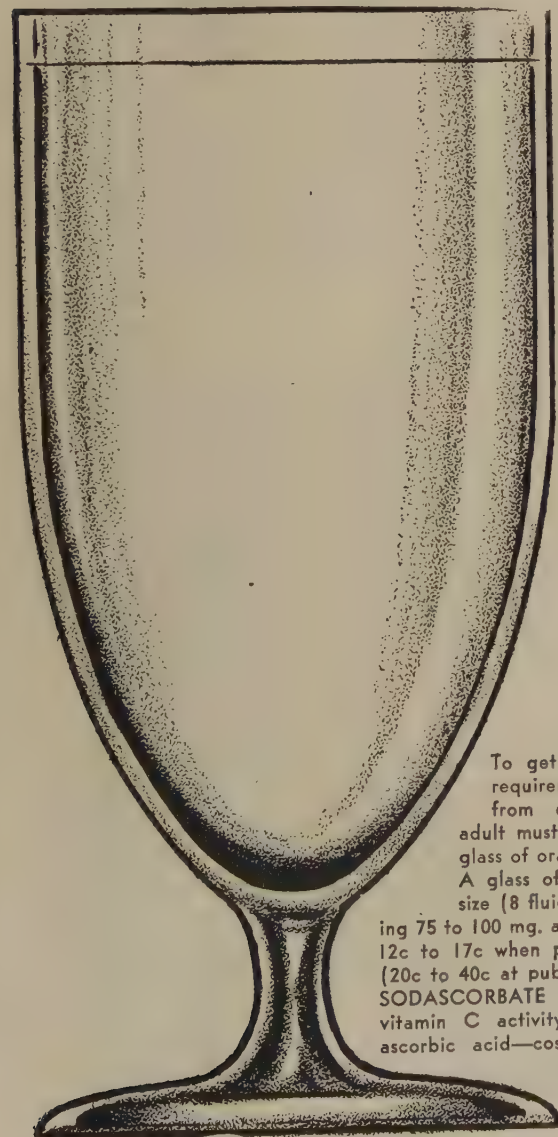
Glassful?—or Thimbleful?

As you know, Doctor, so much vitamin C is lost in cooking that one of the few practical ways to get one's daily requirement from the diet is from orange juice. Most of your patients will tell you they drink a glassful every day, but what do they mean by "a glassful"?

Thimbleful would be more like it. Today especially, with oranges so expensive, the housewife feels it necessary to cut down on the daily orange juice intake. Thimble-like glasses—2-ounce, 3-ounce, 4-ounce—are the rule rather than the exception.

How much orange juice does a 12-year old need for his optimal daily vitamin C requirement? How much orange juice does a grown-up need? The child in health should have from 2 to 5 ounces, depending on his age. The adult in health should have 8 ounces.

When prepared at home, an 8-ounce glass of orange juice costs 12c to 17c—a cost of about \$3.50 to \$5.00 per person each month. This is all right for your patients who can afford it, but for those who must count the cost, the least expensive way is by means of synthetic vitamin C.



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Expansion Program of Long Island College of Medicine

The Long Island College of Medicine, Brooklyn, N. Y., has announced that a contract had been signed by the college to purchase a six acre tract of land facing Kings County Hospital in the geographical center of Brooklyn for an additional campus. This is the first step in a program of expansion proposed by the college.

Dr. Frank L. Babbott, chairman of the board of trustees and former president of the medical school, said that for several years the College "has been virtually 'bursting at the seams'. Every possible inch of space is being utilized. A number of projects on which the college should be going ahead are held up due to the lack of room to accommodate equipment and personnel. This condition was critical before the war, and it is even more critical now. There are various new developments, especially in the field of postgraduate continuation courses for physicians returning from war service and in the field of community care, which require immediate attention. The college has announced a series of continuation courses in cooperation with affiliated hospitals and its own basic science departments beginning this week. These must be continued and expanded."

Dr. J. A. Curran, president of the college, issued a statement in which he emphasized that the college did not intend to abandon its present buildings, but that these would be redeveloped for special needs, such as industrial medicine, and for the research and teaching needs of an ideal clinical teaching center organized around the Long Island College Hospital. The college expected to continue its 'multi-center' plan of clinical teaching in which ten hospitals and two health agencies in Brooklyn now cooperate and to extend its affiliations where definite gains in the educational, research or service phases of the program are indicated.

"A vast new medical center along the lines of those in Manhattan is clearly not the solution for the medical and health needs of the Brooklyn-Long Island area," he said. "An evolving pattern of teaching and research built around hospital and clinic facilities, present and planned; a vigorous program of graduate and postgraduate training serving many sections of the Long Island community; leadership in the establishment of local services which stress preventive care for the general population: this is the rôle the Long Island College of Medicine envisions for the future."

Commenting on these developments Dr. Babbott declared that the college was now in a position to consider more fully the recommendations of its administration and faculty as to the location and development of future teaching and research facilities and to its responsibilities in the field of community care. The present move, he said, was both timely and necessary if the college was to meet its responsibilities for present and future medical needs of the community.

The Long Island College of Medicine is one of the five medical schools in New York City. It was established in 1930, having been prior to that time and since 1860 the medical college of the Long Island College Hospital. It has no university affiliation. Its present student body numbers 404. It has 3,315 living graduates, 1,323 of them Brooklyn doctors.

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Development Program of Northwestern University

A plan of development for the Chicago campus of Northwestern University, emphasizing the need for vastly increased research in law, medicine, dentistry, business, government, and aeronautics, and representing one of the most comprehensive programs of its kind ever announced by an American university, was outlined recently by Franklyn B. Snyder, president of the university.

The new program, which the University hopes to realize within the next twenty-five years, has been projected by the committee on development of Northwestern's board of trustees, of which Harold H. Anderson is chairman. It calls for the raising of between \$95,000,000 and \$150,000,000 to erect on the campus sixteen new buildings, equipped with all necessary facilities, and to provide a large endowment for research and teaching. The completion of the project will make the Chicago campus of Northwestern one of the world's greatest centers for research and teaching in medicine, law, and dentistry, and for evening study in journalism, commerce, liberal arts, education, speech, and music.

Enlarged medical center.—Among the various objectives included in the campus plan, the most important is the development of a great medical center that will place major emphasis on medical research. Ten new buildings are planned which, together with equipment and endowment for fellowships, libraries, the publication of research, and a staff of brilliant medical investigators, will require a sum ranging from \$63,000,000 to \$95,000,000. The proposed development will make Chicago the world's greatest center for medical teaching and research.

Institute for medical research.—The major project in Northwestern University's plan for a medical center is an Institute for Medical Research that will undertake investigation into the many unsolved problems of medicine, especially in the field of the degenerative diseases, such as heart ailments, cancer, high blood pressure, and kidney disorders, that are incident to adulthood and old age. Plans for housing the Institute call for a twenty-story building, which will cost approximately \$6,000,000. It will be completely furnished with the most modern facilities and equipment, and will contain ample space to house all of the specialties involved in medical research.

Allied hospitals.—Dean Miller points out that the research of the Institute will be greatly aided by the existence on the campus of two well-equipped hospitals: Passavant Memorial Hospital, which was opened in 1929, and Wesley Memorial Hospital, which was completed in 1941. Both of these hospitals are affiliated with Northwestern University under an agreement that provides for the use of their facilities in the teaching and research programs of the Medical School. The Medical School also maintains affiliation with the Evanston Hospital, St. Luke's Hospital, St. Joseph's Hospital, Chicago Maternity Center, Children's Memorial Hospital, Cook County Hospital, Municipal Contagious Hospital, Chicago Municipal Tuberculosis Sanitarium, and Michael Reese Hospital. The resources of the entire University will also be available to the new Institute.

Related projects.—In addition the Institute will vastly increase its effectiveness in research through its close association with other developments in the projected medical center. These include a neuropsychiatric clinic, a cancer clinic, a urological institute, an eye hospital, a women's hospital, a school of nursing, a children's hospital, a university clinic, and an expansion of a general hospital. These nine buildings, which will be erected on the campus will require an expenditure of \$16,800,000. Large endowments will be required to maintain the buildings and provide the best possible staff for teaching and research.

This comprehensive program for the development of the Chicago campus will probably require twenty-five years for its completion. It is hoped, however, that a substantial part of the development may be accomplished by 1951, when Northwestern will celebrate its hundredth anniversary.

Examinations for Appointments in the Regular Corps of the Public Health Service

Examinations for appointments of medical officers in the Regular Corps of the United States Public Health Service will begin on April 4th at various convenient localities throughout the country, Surgeon General Thomas Parran has announced. Examinations are for appointments to fill vacancies of assistant surgeon and senior assistant surgeon.

Regular Corps appointments are permanent. They provide qualified doctors with opportunities for a career in one or more of a number of fields including research, general hospitals, special hospitals, foreign duty, and public health programs. Assignments are made according to careful consideration of the officers' demonstrated abilities and experiences.

Entrance pay for assistant surgeon with dependents is \$3,411 a year, and for senior assistant surgeon with dependents is \$3,991 a year. Promotions are at regular intervals up to and including the grade of medical director which corresponds to full colonel at \$7,951 a year. Retirement pay at sixty-four is \$4,500 a year. Full medical care including disability retirement at three-fourths pay is provided. All expenses of official travel are paid by the Government. Thirty days' annual leave with pay is provided.

Applicants for the grade of assistant surgeon must be citizens of the United States, must present a diploma of graduation from a recognized medical school, must have had or be in the process of completing the seventh year of college or professional training or experience since high school graduation (two years pre-medical, four years of medicine, one year internship), and must have a physical examination at the place of oral examination by medical officers of the Service. Applicants for the grade of Senior Assistant Surgeon must meet the above requirements and must have had four additional years of postgraduate training or experience.

Examinations will be oral and written. The written examination will be held on May 14th, 15th and 16th at places convenient to the candidate and the Service. For complete information concerning the time and place of oral examinations, and for application forms, write to the Surgeon General, U.S. Public Health Service, Washington 25, D.C.



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Report of Baruch Committee on Physical Medicine

To advance and encourage research, teaching and training in the field of physical medicine—and to bring the benefits of this branch of medicine to the rehabilitation of persons maimed in war, industry or by illness—Bernard M. Baruch in 1944 made an initial grant of \$1,100,000 to the Baruch Committee on Physical Medicine. The first annual report of the committee, prepared by the medical director, Frank H. Krusen, M.D., of the Mayo Clinic, has outlined the progress in attaining the objectives of Mr. Baruch's endowment.

Eleven medical schools shared funds in the original grants: Columbia University, \$400,000; New York University, \$250,000; Medical College of Virginia, \$250,000; Massachusetts Institute of Technology, \$50,000; University of Minnesota, \$40,000; University of Southern California, \$30,000; Harvard University, \$25,000; University of Iowa, \$15,000; University of Illinois, \$15,000; Washington University, \$10,000; Marquette University, \$5,000; Harvard received a later special grant of \$30,000 for a special fellowship program.

Summary

Dr. Krusen summarized the progress made during the year at the specific institutions as follows:

Columbia University, College of Physicians and Surgeons

Creation of courses leading to a B.S. degree in occupational and physical therapy with enrollment limitation of fifty students yearly in each category.

Plans are well advanced for the merger of New York Orthopedic Hospital with Columbia Medical Center and for a major expansion of physical therapy in the enlarged Vanderbilt Clinic and Harkness Pavilion. While awaiting the appointment of a research director, the medical school has undertaken to assist various departments in research projects in the field of physical medicine including:

Insulin therapy in combination with fever therapy produced by physical means; studies of electric shock therapy; the effect of temperature on hemorrhage, fluid and electrolyte balance; distribution of volume of blood, and metabolic disturbances resulting from circulatory changes; basic problems of circulation in small vessels and capillaries; the use of radioactive isotopes in circulation investigations.

New York University, College of Medicine

Dr. George G. Deaver has been appointed director of the program as professor of clinical medicine. The departments of physical and occupational therapy at Bellevue Hospital have been combined into one department of physical medicine. Under the new plan, cases whose prognosis had been considered hopeless are now referred to the new department. Also, patients with poliomyelitis are referred for treatment and rehabilitation. Assistance is given to other departments in the treatment of patients with arthritis or fractures.

A feature of the program is a special laboratory where patients can be tested in activities essential to daily living. The use of crutches in walking, climbing stairs or curbs, care of daily need and even left-handed writing are typical examples. Hundreds of copies of the booklet describing these tests have been made available.

An outgrowth of this work is the plan to devise a test to measure a patient's ability to perform any one of the more than 3,000 vocations listed in the job analysis survey of the War Manpower Commission. A physician who is also an engineer has been assigned to this research project from the Army Air Force.

As a special project, the testing and rehabilitation of cases of spinal cord injury have been outlined in a manual and in sound motion pictures to fit the current needs of soldiers who have spinal cord lesions.

Efforts are under way to evaluate the functional capacity of cardiac patients and recondition them for industrial work.

Medical College of Virginia

Dr. F. A. Hellebrandt has been appointed professor of physical medicine and acting director for the program studying hydrology, climatology and spa therapy.

The director made a complete inspection of N. Levi Memorial Hospital at Hot Springs, Arkansas. The spa is interested in cooperating with the work of the Baruch Committee in research on hydrotherapy.

A basic research laboratory was founded and, despite lack of complete equipment, a research program was inaugurated including the study of: birefringence of mammalian muscles; changes in muscle proteins during atrophy; use of electric stimulation, massage or baths to overcome atrophy. Plans for future research include a study of supersonic waves and the development of techniques for creation of uniform arthritic lesions in experimental animals to test various hydrotherapeutic measures.

Massachusetts Institute of Technology

Dr. F. O. Schmitt, head of the departments of biology and biological engineering, has been appointed director of the laboratory of applied biophysics. Dr. K. S. Lion is the immediate supervisor. As equipment on order is received, it is planned to investigate the dielectric properties of muscles and tissues in high frequency fields and nerve impulses by electronic methods.

Harvard University

The Baruch grant was received one month prior to the annual report and in that short time it had been possible only to survey possible personnel and plan research on (a) biochemical factors relating to fatigue and (b) the psychiatric aspects of fatigue in psychoneurotic patients.

University of Minnesota

Since the staff is only partly assembled, no report on research progress is possible at this time, but during the year two groups totalling fourteen students have been enrolled in the twelve-month course on physical medicine under the direction of Dr. Miland A. Knapp. A third group of twelve students is currently taking this course. Dr. Herbert Wells has been appointed professor of biophysics and will direct research in physical medicine.

University of Southern California

Under the direction of Dr. Irving Rehman, research planned or in progress includes: the evaluation of compensatory action of muscles or muscle groups; the use of soft tissue x rays and metal pin implants to study muscle movement; the determination of electrical potentials in muscle contractions; the interruption of neuromuscular pathways by pressure, nerve section and chemicals; the effect of internal environment on regeneration of neuromuscular pathways and return of function.

University of Iowa

Research in progress includes the use of thermogenic agents on deep tissue heating and the effects on circulation of short wave diathermy, in animal experiments.

Marquette University

Research has centered on the effects of temperature changes on the neuromuscular apparatus with especial reference to thermal shock.

Washington University

A two-year research program on bodily mechanics is planned and personnel is being sought to carry it through.

University of Illinois

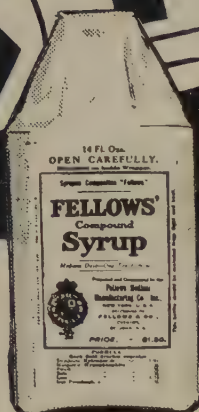
Teaching personnel is being obtained to establish a training program in occupational and physical therapy.

Schenck's disease, or sporotrichosis, is named after Benjamin R. Schenck, an American surgeon (1842-1920), who reported on the condition in the *Johns Hopkins Hospital Bulletin* in 1898.

Bockhart's impetigo is the name given to the follicular staphylococcal impetigo separated from impetigo contagiosa by Max Bockhart in 1887. Bockhart asserted that the lesions were pustules from the first, pustule d'emblee.

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PUBLISHED MONTHLY BY
THE MEDICAL JOURNAL AND RECORD PUBLISHING CO., INC.

VOL. 159, No. 4

APRIL 1946

WHOLE No. 2759

BRITISH CONCEPTIONS OF AMEBIASIS AND AMEBIC DYSENTERY

SIR PHILIP MANSON-BAHR, C.M.G., M.D., F.R.C.P.

London, England

Although amebiasis is necessarily the precursor of amebic dysentery these two terms are not necessarily synonymous. It is possible to be infected with *Entamoeba histolytica* and for this organism to produce secondary amebic manifestations without at any time giving rise to the dysenteric syndrome, but frequently diarrhea is the outstanding feature so that, sometimes, it would be more appropriate to speak of "amebic diarrhea". Amebiasis is a common cause of chronic abdominal pain, and the hypertrophic form, or ameboma, produces palpable tumors of the cecum or sigmoid, clinically indistinguishable from carcinoma. It is now recognised that fissures and ulcers of the anal margin may be due to amebic invasion and also that it may produce infection of the skin—a somewhat rare complication. An entirely different picture is presented when the organism exists as a lumen infection and maintains itself as a harmless commensal in what is known as the cyst carrier or passer state. Opinions still differ regarding the significance of this phenomenon. One school, represented by Westphal (1) and Reichenow (2), in Germany, think that symbiosis with some pathogenic intestinal bacterium is necessary before the ameba can invade the mucosal cells and produce amebic dysentery—a view not generally accepted by British workers. There are those who argue that two races of *Entamoeba histolytica* exist and that the small, or *minuta* race, characterized by the small cyst (six micromillimeters in diameter) is nonpathogenic, but this matter is also by no means settled. The infinite variations in symptoms of this infection, the mildness of some phases, the virulence of others and the difficulties in differential diagnosis, thereby produced, are such as to cause a sense of bewilderment in those who have not devoted much time and thought to the subject. These variations may be due to differences, not so much in virulence, as to innate resistance of the tissues to invasion. In fact, the clinical picture resolves itself into an epic waged between the invading organism and the recuperative powers of the human host.

There are other complicated matters in the diagnosis of amebic dysentery, quite apart from the clinical aspect, and one to which British workers have made considerable contributions. The recognition of *Entamoeba histolytica* with absolute accuracy is easy enough in fresh fecal specimens in the active tissue-invading or vegetative stage. Here the refractility of the organism, its characteristic movements and the

somewhat greenish tinge of the protoplasm are distinctive, as well as the possession of two more or less well-marked zones—the inner granular and the outer clear protoplasm. Ingested red blood corpuscles are confirmatory evidence, but they are by no means necessarily present in all individuals. There are other features in the acute stage—such as the characters of the exudate which were originally described by Willmore (3) and Shearman. The nature of these appearances (by a method sometimes known as cytodiagnosis) is revealed in the absence of any cellular elements, the clumping of transuded red cells into *rouleaux* and the frequent presence of Charcot-Leyden crystals, though it must be emphasized that the latter do not always indicate amebiasis. It is important to add that, though precystic forms may often be found in the active stage in blood and mucous stools, the fully formed four-nucleated cysts are seldom seen in association with motile trophozoites.

The cysts are present in the chronic stage of the disease which is associated with the passage of fecal stools—often diarrheic, but quite commonly formed, or even constipated.

They have their characteristics (4) which soon become apparent to the practised eye when stained with Weigert's iodine solution. These are the striking nuclei with well-formed central karyosome, the iodine-staining vacuole, and frequently also the contained dumb-bell shaped "chromatoid bodies". The number of cysts present may vary greatly from time to time and in different evacuations. Sometimes they are so numerous that examples may be seen in every microscopic field; at others, so scanty that they may be demonstrated with difficulty or only after prolonged search. But it is apparent that their prevalence, or scarcity, bears no proportionate relationship to the clinical severity or otherwise of the infection. The fact remains that one cyst, properly identified, suffices, in expert hands, to make a diagnosis of amebiasis.

The eosin method which stains the background pink and leaves the cysts as refractile pale haloes has many advocates. Concentration methods for demonstration of cysts have been devised. Those of Yorke (5) and Adams and the zinc sulphate method of Faust (6), all of which rely on their end results on repeated centrifugation, are time-consuming and are not much employed in actual practice. Cultivation methods (Boeck (7) and Drbohlav, Dobell (8) and Laidlaw) are also

open to the same objection and, moreover, they possess the obvious disadvantage that the material to be cultivated must contain numerous and easily visible cysts before success can usually be obtained.

The differentiation of *Entamoeba histolytica* in all its various phases, especially the somewhat abnormal appearances it may sometimes assume, from the other nonpathogenic amebæ of the intestinal tract, is a field to which British workers, notably Dobell (9), Wenyon (10) and O'Connor have contributed much. The first and commonest pitfall is to mistake that very common commensal, *Entamoeba coli*, for *Entamoeba histolytica*. As a rule, the eight-nucleated cyst of the former does not present any obvious difficulties, but with the active vegetative *Entamoeba coli* in a freshly passed stool it is another matter. Reliance should be placed upon the less active movements, the lack of sharp definition between the ectoplasm and the endoplasm, and the character of the large *Entamoeba coli* nucleus with its eccentric karyosome which is usually visible and conspicuous. From *Endolimax nana* differentiation is easier still. Here the organisms are usually very numerous; they are fragile and small (six to twelve micromillimeters in diameter) and possess a marked nucleus with eccentrically-placed chromatic karyosome. The small four-nucleated cysts are liable to be mistaken for *Entamoeba histolytica*, but the nuclei are grouped together at one pole and do not contain any iodophil inclusions or chromatoid bars. From *Iodamoeba buetschlii* the difficulty usually arises with the cystic stage, the so-called "iodine cyst", but this has a large and conspicuous dark-staining iodine vacuole and a large nucleus. *Dientamoeba fragilis* is probably the ameboid state of a flagellate, *Histomonas fragilis*. It is rare, small and active, and the majority of individuals are binucleate and present no great difficulty in differentiation. No cystic stage is known. This rather complicated matter does not end with the recognition and identification of the amebæ. In dysenteric exudates, especially of bacillary origin, the inflammatory body cells derived from the ulcerated mucosa—the histiocytes and macrophage cells—which mimic *Entamoeba histolytica* to an extraordinary degree, also demand study and recognition.

These cells are found especially in acute bacillary (*Bacillus shigae*) dysentery and also in other acute inflammatory conditions, such as ulcerative colitis. These cells caused considerable confusion in the earlier stages of the 1914-1918 war—in the days of Gallipoli where British troops were stricken with a dysentery epidemic of considerable magnitude. Many pathologists then, as now, were called upon, without preliminary training, to diagnose the various and confusing forms of dysentery, and undoubtedly much misdiagnosis occurred. To the trained eye these *simulacra* should cause no great difficulty, and it is apparent that now most pathologists have grasped their significance. In freshly passed warm stools, it is true, these cells do show feeble ameboid movement, but their lack of refractility, general ground-glass appearance of the protoplasm and absence of distinctive nucleus, are signposts which the trained protozoologist is ready to appreciate.

These, then, are some of the technical difficulties. The next practical method is sigmoidoscopy. Fortunately, in the great majority of cases (eighty percent) of

active amebiasis the amebic ulcers, or lesions, are visible in the rectum, but in cecal amebiasis, which is by no means uncommon, it must be remembered that the rectum and lower sigmoid, within the range of the sigmoidoscope, are normal. The characteristic sigmoidoscopic appearances of amebiasis have been described by the author (11), Biggam (12), and others. There are minute, pinhead, discrete ulcers, on raised hemorrhagic elevations, or on mounds of edematous mucosa, resembling a tiny pouting mouth (as C. N. Morgan (13) has so aptly described them). In order to visualize them accurately a magnifying eyepiece to the sigmoidoscope is essential. The intervening mucous membrane is usually quite normal, but again there may be bare granulomatous areas resembling ulcerative colitis, or scattered petechial hemorrhages, without ulceration, which may be easily overlooked; or again a large solitary, irregular, indurated ulcer infiltrating the rectal wall, mimicking carcinoma. The hyperplastic granuloma, or ameboma may be quite indistinguishable from malignant growths. British workers, notably Fairley (14), Boyd and Morgan, have emphasized that discrete clean-cut ulcers identical with those of amebiasis, may sometimes be seen in bacillary dysentery. The actual verification of amebiasis is made by scrape preparations made directly from the ulcers and by immediate microscopic examination of this material in warm saline. This is best effected by a long-handled Volkmann spoon with a blunt edge which I have devised (15), and have demonstrated that this method is often successful even when direct feces examination has failed. In a series of 258 sigmoidoscopies in intestinal amebiasis, amebic ulcers and other characteristics were demonstrated in 234 and in 77 active amebæ were identified in scrapings. In twenty-six *this was the only method by which a diagnosis was obtainable*. In several, in particular, the feces had been repeatedly scrutinized in vain.

It will therefore be gathered that, both from the microscopic, as well as from the instrumental viewpoint, the diagnosis of amebic dysentery is a skilled and specialized affair and requires considerable practice and study in order to obtain the requisite experience. The danger of setting pathologists untried in these methods to differentiate the dysenteries without previous training will be readily appreciated.

As regards the *clinical aspect* everyone, I think, will agree that in wartime amebic dysentery assumes a more virulent and perplexing attitude than in times of peace. Acute fulminating cases, such as are now being encountered from India and Burma, seldom occur in civil life. Out of a series of 535 cases during the last twenty years I have encountered only one which was rapidly fatal. In ordinary practice amebic dysentery is a chronic affair, usually consisting of alternate bouts of diarrhea or constipation, flatulency, abdominal pain and discomfort, sometimes associated with emaciation, *but by no means always*. I have recorded cases which have lasted ten, twenty, thirty and even fifty years without grievous detriment.

Without doubt this variation in virulence is to be ascribed to the state of the general health and the degree of tissue resistance. In exhausted and debilitated troops fighting in damp unhealthy jungles amebic dysentery may be a virulent disease indeed. Pyrexia in intestinal amebiasis is usually absent.

especially in chronic cases, but in these wartime massive infections (as in the Chicago epidemic (16) of 1933) remittent typhoidal pyrexia may be a feature, and therefore this alone may not suffice to differentiate amebiasis from bacillary dysentery. I have recorded one case of "amebic fever" of fourteen days' duration which from the clinical aspect was thought to be typhoid and where the sole means of diagnosis was by sigmoidoscopy and the recognition of numerous amebæ in rectal lesions.

There are few distinctive clinical features. Authorities lay stress on the somewhat muddy complexion, the absence of other signs of toxemia, such as flushed facies, sunken eyes or furred tongue. There is usually some infiltration of the sigmoid colon which is palpable and tender on deep pressure; and in a small proportion, a similar condition of the cecum. But it must be remarked that in a considerable proportion even these somewhat indistinctive stigmata are absent. In uncomplicated intestinal amebiasis there is a moderate leucocytosis of 10,000-15,000 with usually a somewhat low proportion of polymorphonuclears (seldom over eighty percent) which may prove helpful in difficult cases. Unfortunately the complement-fixation test of Craig is too technical and complicated to be used in actual practice or in wartime medicine.

Transmission of Amebiasis

Amebiasis appears to be for the most part a water-borne infection. This can be assumed to some extent by the structure and composition of the cysts which are susceptible to desiccation and can survive outside the body solely in a moist medium. The spread of amebiasis is therefore mainly due to conditions of defective sanitation and this is clearly shown by its prevalence in those countries where insanitation is prevalent and where consequently the largest numbers of cyst passers are to be found. The most convincing testimony in this direction was obtained in the Chicago outbreak already referred to. It is also probable that cysts are ingested with vegetables, such as salads, radishes and celery whenever these are fertilized, as they so often are, in Eastern countries, by human night soil.

During the 1914-1918 war amebiasis was contracted by troops in cultivated areas, whereas in infertile desert regions this infection was hardly noticeable. Other instances may be quoted. I have recorded that in Europeans who drink water stored in tanks, as in St. Vincent (Azores) (17) the whole community becomes infected. In wartime the protection of troops from amebiasis is an immense problem and in jungle warfare the risks are very great, but it is generally accepted that no native servant who is a cyst passer, should be employed as cook, mess orderly or in any service connected with the handling of food.

The cyst passer rate varies greatly in different countries and a large series of statistics has been amassed. Craig in the United States (1935) believes that the mean rate is about 11.6 percent. In South America (Columbia) it is as high as sixty percent (W. M. Jones, 19), in China (Peking) about 20.3 percent (Faust, 20), and in native Javanese 23.6 percent (Brug, 21). In India (Madras) it is about 21.9 percent (22). It is a mistake to assume that amebiasis is solely a tropical and subtropical infection. It is really

worldwide, and even in the Kola Peninsula in the Arctic Circle a carrier rate of 60.6 percent has been recorded (G. V. Epstein, 23). But the disease "amebic dysentery" is undoubtedly rare in Northern countries. At the close of the war of 1914-18 I treated cases of this disease in patients who had been infected in northern France (5) and Germany (3).

Entamoeba histolytica cysts occur in a small proportion of the English population. Yorke (1918) found 5.2 percent of army recruits who had never been abroad infected and 19.5 percent of asylum inmates. Yet indigenous "amebic dysentery" is extremely rare in England. Occasional cases of amebic abscess of the liver have been accurately recorded from 1909 onwards. Wenyon, in 1915 (24) found amebic dysentery and liver abscess in a labourer in the London docks; two further cases were recorded by G. C. Low (25), C. Dobell, Worster-Drought (26) and Rosewarne in the same year. Others are by Simpson (1926) (27) and Gilroy (1928) (28) and one by me again in the London docks (1929) (29). In recent years only two other instances have come to light, one in a girl of twelve, and another in an officer from the London area with numerous *Entamoeba histolytica* cysts, but without any obvious bowel symptoms.

Treatment

I have treated amebic dysentery in patients hailing from sixty-four countries during the last twenty years. The great majority have come from India and Burma, Malaya, Ceylon, Iraq, East and West Africa, Egypt and Palestine. There have been cases from Capetown, New South Wales, and isolated islands, such as Canary and Cape Verde Islands, Zanzibar, Bahrein Island and Mauritius, also from the Argentine and other places in South America.

The effective treatment of amebic dysentery is still a matter of dispute. Some infections appear to be easy to eradicate whilst others are most refractory. It would certainly appear that amebiasis is much easier to treat in peace time, but presents a much more difficult problem in war, and somewhat disappointing and disheartening results are now being obtained in service personnel invalided from India and Burma.

In English practice great reliance has always been placed upon hypodermic injections of emetine ever since the introduction of this method by Rogers in 1912. There can be no question, from the laboratory aspects as well as from practical clinical experience, of its lethal effects upon the vegetative tissue-invading forms of *Entamoeba histolytica*. The cessation of diarrhea, blood and mucus in the feces after a series of emetine injections is a striking fact and its effects upon the metastatic phenomena, such as amebic hepatitis, and amebic invasion of the skin are equally startling but, and this cannot be sufficiently emphasized, this drug given by the hypodermic route, has no effect upon the chronic stage of the disease at all, especially when *Entamoeba histolytica* cysts are present in the feces. Failure to realize this has to some extent led to the rather doleful view entertained by physicians at the present time regarding the cure of amebic dysentery.

There is another matter which is equally important and that is: irrational reliance on hypodermic emetine injections has given rise to the practice of courses at regular intervals. This is not only ineffective in

eradicating the infection, but it is actually dangerous, and renders *Entamoeba histolytica* emetine-fast, so that the parasite cannot be subsequently eradicated by emetine compounds.

Emetine bismuth iodide was introduced in 1915 by Dumez and has since that time been widely employed in British practice for the treatment of amebic dysentery, and especially in the chronic stage with cysts. In freshly occurring cases and in those which have not been previously subjected to prolonged emetine treatment, I have never experienced any great difficulty in curing amebiasis, even when of long-standing. But it is necessary that this rather nauseating drug should not only be retained, but absorbed. The individual dose varies from two to three grains, and the total dosage from twenty to thirty grains. The cysts disappear invariably from the feces after two to three doses. Failures in treatment with emetine bismuth iodide are usually due to nonabsorption and it should be given in gelatine capsules or in sugar-coated form as it has been conclusively shown that keratin-coated tablets are passed through the bowel unchanged.

The patient must be properly prepared and have no solid food for four hours beforehand, and a suitable sedative, such as allonal or luminal should be given half an hour beforehand. Other forms such as emetine periodide and auremetine are sometimes better tolerated and appear to be equally efficacious.

Since 1925 I have supplemented emetine bismuth iodide treatment by rectal retention enemata of quinoxyl (chiniofon, anayodin, yatren) in two and one half percent solution (30). The amount should be about seven ounces and should be run into the bowel slowly and retained for six to eight hours. This is best given in the daytime for ten days and should run concurrently with the emetine bismuth iodide. In order to facilitate the percolation of the medicated enema the foot of the bed should be raised one foot, on blocks.

When there is an unhealthy state of the bowel and the passage of mucus it is advisable to inject a cleansing enema of two percent sodium bicarbonate (one pint) about half an hour before the quinoxyl enema is administered.

By this combined method I have been able to record the greatest number of successes. In a series of 31 cases so treated the relapse rate was 3.7 percent within one year, but on repeating the treatment at a later date all patients have been finally cured.

Many other drugs are of course used in the treatment of amebic dysentery. The arsenicals—acetarsol and carbarsone—have been much in vogue, the latter especially in the United States. But in the recent war carbarsone, even when given in large doses (0.25 gm. twice daily) for three weeks or longer, seems to have had little effect on amebic lesions and cases continue to relapse even when this treatment is combined with emetine injections. I have found active *Entamoeba histolytica* in the feces and in rectal ulcers of patients who have been on this treatment for a month or even longer.

Other iodine derivatives, such as enterovioform and diodoquin may be irritating when given by the mouth over a long period. The latter is well thought of in America and there are those in England who are ob-

taining good results in ambulant treatment of cyst passers when given by the mouth over a period of two to three weeks. Kurchi bark and its derivatives, which are extensively prescribed in India, appear to be quite inert. There is obviously, then, plenty of opportunity for improving our methods for the radical cure of amebic dysentery.

As regards diet there appears to be no object in restricting the patient to milk alone. Nutrition is important and must be attended to; this is specially so in these debilitated wartime patients, whose general condition demands consideration as well as their amebiasis. I advise a liberal and easily assimilated diet of eggs, soup, minced meat and apple purée and encourage my patients to eat a good breakfast and midday meal. During convalescence a generous diet is advisable, but the consumption of alcohol must be restricted for at least three weeks.

Conclusion

So it will be realized that in order to obtain permanent cure the treatment of amebic dysentery is a serious affair and unless the minutiae of treatment are observed, failure is bound to ensue.

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PENICILLIN A SPECIFIC IN ACUTE INFECTIOUS EPIDEMIC DIARRHEAS OF CHILDREN AND THE NEWBORN

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It is well known that the exact causation and the definition of diarrhea in children is not too lucid. Griffith and Mitchell, in their *Textbook of Pediatrics*, 1941, divide diarrhea in children into two classes, acute gastroenteritis and acute ileocolitis, the latter being bacillary dysentery. However, after long and careful clinical observation one is almost convinced that acute epidemic gastroenteritis and acute bacillary ileocolitis are one and the same disease, with the exception that a member of the bacillary dysentery group (Shiga, Flexner, Newcastle, and Schmitz types) is found in ileocolitis, whereas no organism or a virus is suspected in severe gastroenteritis in children. In fact, Griffith and Mitchell say definitely that the two diseases are hard to differentiate from each other and that actually acute gastroenteritis develops into bacillary dysentery in some cases.

The observation in this series of cases of diarrhea treated with penicillin was made without any attempt really to differentiate between these two diarrheas, however, as the results were excellent and no mortality occurred.

Definition

Acute infectious epidemic diarrhea of children and the newborn are considered, in this paper, to be those diarrheas which occur usually in children and are characterized by a sudden abrupt onset with alarming symptoms of shock, with chills and fever from the first few hours to two days. This onset is followed in about two or three hours by frequent liquid stools with or without blood and tenesmus. The number of stools varies from ten to one hundred and forty in twenty-four hours. Vomiting is usually an accompanying symptom and, although it may be absent altogether, it can occur as frequently as the bowel movements. Stool cultures may or may not reveal the *Shigella* bacillary dysentery group.

The disease occurs usually in epidemics and usually in children under five years of age, although it may affect adults also in epidemic form. It is, however, mild in adults. These epidemics usually occur in late spring, in summer and also in the fall, in the hotter climates. Although the disease is most severe in the malnourished and unhygienic, it spares none, regardless of how hygienic or progressive the family may be. The mortality rate runs during epidemics from five percent in some years to twenty-five percent in other years. The diarrheas are not related to any food intoxication of any kind, but is a true epidemic and contagious disease, such as measles, mumps, etc. This, then, is the disease which is meant when I speak of acute infectious epidemic diarrhea of children and the newborn.

Report on the Use of Penicillin

The mortality rate from acute epidemic infectious diarrheas in children under five years of age previous to the advent of the sulfonamides was in South Texas, from twenty percent to fifty percent, particularly in

children under one year of age. The more widely distributed the epidemic, the higher the mortality rate, especially in the hotter months of June, July, and August. With the advent of the sulfonamides, especially sulfadiazine, the mortality rate was further reduced to as low as from five to ten percent. However, this rate is still alarming and makes the disease formidable in spite of the sulfonamides. The mortality is greater, too, when the case is brought to the doctor's attention after the patient has suffered from acute infectious epidemic diarrhea for over forty-eight hours, or if no sulfonamides have been used in previous treatment.

Thus, with these facts in mind, I decided to use penicillin with the view of improving the mortality rate. In the highly toxic cases, where death appeared inevitable either because the sulfonamides had failed or because medical care had been sought too late, I first used penicillin as a heroic measure, in sheer desperation, although no reports had been available to me of its previous use for this disease. The results in these seemingly hopeless cases have been astounding and even miraculous (if the reader will pardon my enthusiasm for using these superlatives in a scientific paper). There was improvement in from four to twenty-four hours and from being practically moribund, the child returned to an almost normal state. The vomiting and diarrhea stopped completely in from four to twenty-four hours. The glazed look disappeared. The child appeared perfectly normal and only the evidences of dehydration were in evidence for a few more days. No signs of toxicity remained after the first four to twenty-four hours.

Regime of Treatment

If the diarrhea was severely toxic or if the sulfonamides had failed to bring about improvement within twenty-four hours after administration, penicillin was then instituted. A minimum of one hundred thousand units was given every twenty-four hours. It was administered usually in one dose by dissolving one hundred thousand units of the powder in five cc. of water or saline and injecting the solution into the gluteal muscles. If the child was toxic, but not severely so, the one hundred thousand units of penicillin were given in two divided doses of fifty thousand units each within twenty-four hours. Occasionally thirty thousand units were given every three hours for a total of four hundred and eighty thousand units. However, the best results were obtained by giving one hundred thousand units in five cc. of distilled water in one individual dose, in spite of the fact that I am well aware that fifteen thousand units is supposedly the maximum amount absorbed by the body in three hours, and that one hundred thousand units should all be excreted or broken down in the body in three hours. However, one hundred thousand units in one dose in twenty-four hours was decidedly better than fractional doses of fifteen thousand units every three hours. Thus, usually only

the one hundred thousand unit dose was given at one injection in the five cc. of water or saline.

Feedings were not stopped by mouth nor altered. Fluids were given parenterally when indicated.

Penicillin was used in two types of cases as follows:

Sixty cases in which treatment with sulfonamide (sulfadiazine), paregoric and kapectate had failed. All cases were promptly cured completely with penicillin in from four to twenty-four hours.

Twenty-five additional cases were treated primarily with penicillin because of the severity of the symptoms when first seen or because the cases were deemed hopeless. The result was immediate recovery in from four to twenty-four hours.

Conclusions

1. Penicillin is a specific for acute epidemic infectious diarrheas in children and the newborn, whether the infection is by virus or is of bacillary origin.

2. The appalling death rate of acute epidemic infectious diarrheas in children and the newborn can be reduced to zero by penicillin administered early and immediately.

3. Adjuncts such as sulfadiazine, paregoric, pectin derivatives, and fluids parenterally should not be neglected, but it must be understood that the drug of choice, because of its specificity, is penicillin; the others are only adjuncts.

MEDICAL PROFESSIONAL BUILDING

NEWER CONCEPTS OF MEDICAL TREATMENT AN AID TO THE SURGERY OF THYROTOXICOSIS*

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In the past few years the use of physical and chemical agents which correct the underlying physiology of the thyroid, have produced an evolution in the treatment of disease. The patient is either relieved of the thyrotoxicosis or is brought to surgery in a condition nearly normal.

The first advance in the treatment of thyroid disease was in the use of iodine by Plummer in 1923. This lowered the morbidity and mortality of the disease at operation. Since then with rest, preoperative preparation, sedation, better anesthesia and refinement of surgical technique, we are able in most cases to perform a one stage subtotal thyroidectomy with a low mortality.

Astwood (1) showed that compounds related to thiourea were more active in this disease than sulfonamides, and that the most goitrogenic of the compounds of thiourea, was thiouracil.

Williams (2) by the use of these drugs on lower animals has produced the following results: (a) an increase in the size of the thyroid; (b) a lowering of the basal metabolism; (c) changes in the action of the pituitary gland; (d) diminution of the iodine contents of the thyroid and that remaining is in the form of thyroxine or diiodothyrosine.

Astwood (3) first used thiourea and thiouracil upon patients with thyroid disease in 1942, and obtained (a) a gain in weight; (b) lowering of the basal metabolism, and (c) a restoration of the patient to normal.

Many reports of its clinical use have been reported and show an almost unanimous opinion of its good effects within certain limitations (4-11). We have an effective method of controlling thyrotoxicosis. It should be given in diffuse toxic goiter. Adenoma of the thyroid must be treated by surgery alone, but when accompanied by toxic symptoms, thiouracil will control them.

Thiouracil prevents the action of the thyroid hormone by diminishing the stimulation of the anterior pituitary and producing hyperplasia of the secreting cells of the thyroid gland. There is a lowering of the

basal metabolic rate. The vascular increase produces the enlargement of the thyroid and adds to the difficulty of the operation. This may be counteracted by substituting iodine for thiouracil for ten days or two weeks before surgery. By the use of this drug, we eliminate the dangers of a thyroid crisis.

With clinical experience we have found that the tendency to relapse is not obviated by the use of thiouracil. This may be produced by emotional upsets or intercurrent disease. When this drug is given, in many cases there is a remission of symptoms for many months, and this may continue. Those patients who have previously taken iodine show a slower response to thiouracil, but eventually, they do react. The results are preferable to those following the administration of iodine, in that the action is progressive and held (4-9). It has proved beneficial where iodine has failed.

The use of thiouracil is not without its dangers. The patient need not be confined to a hospital while taking the medication, but must be seen frequently, at least once a week, to recognize any possible toxic reaction, such as (a) agranulocytosis; (b) eruptions or urticaria; (c) fever; (d) glandular enlargements; (e) edema; (f) jaundice; (g) albuminuria.

This report covers twenty-two cases of thyroid disease observed in the clinic and office during the past year and a half. Ten were of the diffuse toxic type, three were adenoma; three were colloid goiters, and six were acute thyroiditis in young girls between seventeen and twenty-one years of age. In only one of the cases of diffuse toxic thyroid was thiouracil stopped after four weeks on account of agranulocytosis which responded to therapy. The results obtained corroborate the experience of others.

Indications and Contraindications

Thiouracil may be used in the following conditions:

1. Acute thyroiditis: This disease comes on suddenly. There is an acute enlargement of the thyroid with elevated temperature and the patient is toxic. The symptoms subside promptly with the use of the drug.

2. Uncomplicated cases: Cases which are mild respond rapidly. They, however, also react to iodine,

*Read at a clinical meeting of Community Hospital, New York, October 16, 1945. The thiouracil used in this investigation was kindly furnished by Dr. Stanton M. Hardy of Lederle Laboratories. Submitted for publication in November, 1945.

except that the action of thiouracil is sustained, progressive and known. If the drug is continued for a sufficient length of time, the basal metabolism rate becomes normal, the heart action is slower, there is a gain in weight, and the patient feels well. There is no diminution of the exophthalmus; it may even be increased. If an operation is decided upon, the patient is in better condition for it, and there is no fear of a toxic crisis. In some cases there may be an accompanying glycosuria which will disappear as the patient responds to the medication.

3. Recurrent thyrotoxicosis: At times after a subtotal operation thyrotoxicosis may appear at varying intervals. Thiouracil may prevent a second or third operation. It is necessary to be on the lookout for myxedema.

4. Cases that have not responded to iodine: Frequently it has been found that adequate therapy with iodine has failed to control the hyperthyroidism. If thiouracil is given in adequate doses and for a sufficient length of time, the symptoms will subside.

5. Thyrotoxicosis with tuberculosis.

6. Thyrotoxicosis with pregnancy.

Thiouracil is contraindicated in the following conditions:

1. Nontoxic goiter: The drug has no place in the treatment of this form of goiter. It will increase the size of the thyroid by overstimulation of the pituitary gland.

2. Mild hyperthyroidism with other symptoms: Where the diagnosis is not positive, with hypertension, the menopausal syndrome, cardiovascular disease or leukemia, with slightly elevated metabolism, thiouracil should not be used.

3. Patients who refuse to cooperate fully: Without cooperation and understanding by the patient, the administration of the drug may be dangerous.

Dosage

In most cases remission of the disease may occur in three to six weeks of treatment. The initial dose of thiouracil should be small, not larger than 0.1 gm. every eight hours. If the results are not satisfactory and there are no contraindications the dose may then be increased to 0.4 gm. or 0.6 gm. daily. Some patients react rapidly and become hypothyroid, presenting symptoms of stupid facies, alopecia, dry skin, voice changes and diminished hearing. If the maximum dose of 0.6 gm. is given daily, in divided doses, it should be reduced gradually according to the effects produced. At the same time a high protein and carbohydrate diet with vitamin B complex should be given.

Cases Seen Most Frequently

Acute thyroiditis.—The patient, G. C., was a young woman, seventeen years of age. Her illness was of one week's duration. She complained of palpitation, a lump in the throat, heavy breathing and nervousness. Examination disclosed no exophthalmus, but showed a diffuse enlargement of the thyroid, tachycardia, a pulse rate of 100, basal metabolism +23, blood pressure 112/70, tremor, sweating, temperature 100.5° F., and excitability. She was given thiouracil, 0.1 gm. every eight hours, and phenobarbital, one quarter of a grain every four hours. Within two weeks all the symptoms had subsided.

An uncomplicated case of thyrotoxicosis.—The patient, P. G., was a man, thirty-one years of age. Following an operation for a deviated septum, on Feb. 28, 1945, he began to lose weight, thirty pounds in a short time, and became nervous. He was seen on June 29, 1945, with a diffuse enlargement of the thyroid, weight one hundred and thirty-nine and a half pounds, tremor, sweating, elevated temperature and nervousness. His pulse rate was 120, blood pressure 180/80, basal metabolism +78. He was placed upon thiouracil, 0.2 gm. every eight hours until the basal metabolism was reduced, and then the dosage was gradually lowered until he received 0.1 gm. daily. Basal metabolism was gradually reduced to +65, +42, +29, +18 and +12, his weight increased to one hundred fifty-five and three-fourths pounds, the blood pressure was lowered to 146/80, and the white blood counts were between seven and nine thousand.

The patient now feels well and has returned to work. He will be operated upon at an opportune time.

An iodine-fast case.—The patient was a woman, thirty-three years of age, who had been taking iodine continuously for many years on account of nervousness and an enlargement of the neck. At times she felt as if she were choking. She was seen on Feb. 5, 1945, and examination revealed a diffuse enlargement of the thyroid, not nodular; pulse rate, 88; blood pressure, 150/80; weight, one hundred and seventy-seven and a half pounds; sweating, and nervousness; basal metabolism +48. She was given thiouracil, 0.1 gm. every eight hours. Two weeks later her basal metabolism was +23, blood pressure 130/90, pulse 72, weight 184 pounds 14 ounces. On May 22, 1945, her basal metabolism was +3, blood pressure 118/72. The white blood count was within normal limits. She now feels well and is at present under observation without medication.

Recurrent thyrotoxicosis.—The patient, Y. G., a woman, fifty years of age, was operated upon for thyroid disease five years ago. It was a two-stage operation, the left side being done first, and the right side four weeks later. She was short of breath, had pain in the chest, was nervous and weak. She was seen on Feb. 28, 1945. At that time the thyroid gland was not enlarged; pulse, 84; blood pressure, 164/88; heart enlarged; weight, 191½ pounds; urine, positive for sugar; basal metabolism +35, and blood sugar within normal limits. She was placed upon thiouracil, 0.1 gm. every eight hours. This dose was gradually reduced to twice a day, then to once a day as she reacted. In May, her basal metabolism was +26, and in June, it was down to +15; pulse 72, blood pressure 142/90, weight 181¾ pounds, and urine free from sugar.

She now feels well, is receiving no medication, and is being observed.

Conclusion

Some physicians believe that the medical treatment of thyroid disease, if continued, will replace surgery. The length of time that thiouracil has been used clinically does not warrant this statement; it is too short. Further investigation will shed more light upon the results, and determine whether they are permanent. In some cases the continued use of thiouracil may be more dangerous than operation. There exists a hyperplastic gland as the result of treatment and the exophthalmus may be increased.

However, thiouracil may solve the problem of re-

current thyrotoxicosis. We hope that from the investigations on the treatment of toxic thyroid disease, now being carried on, a less dangerous drug may evolve. Without further study, thiouracil is not a complete substitute for surgery.

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108 EAST NINETY-FIRST STREET

ELECTROENCEPHALOGRAPHIC STUDIES IN EPILEPSY*

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Although the great clinical significance of electroencephalography was established only within the past few years, already findings comparable in value to those of electrocardiography have been forthcoming. In neurology as in cardiology, the introduction and refinement of electronic techniques have resulted in signal advances in practical diagnosis and therapy as well as in medical theory.

Extensive investigations, employing increasingly accurate methods, have provided steadily more satisfactory and enlightening determinations of normal electroencephalographic tracings at various ages and during various normal or physiologic phases of cerebral activity. It has been found that the electrical activity of the cortex varies according to the degree of awareness, attention, fatigue, somnolence and the emotional state.

Thus, the bases for electroencephalographic study of cortical pathology have been established. In providing evidence of and localizing organic lesions of the brain, electroencephalography is now an indispensable aid. The most important findings in the entire field of electroencephalography, however, have been forthcoming in the study of epilepsy and the mode of action of drugs in epileptiform disorders.

The diagnosis of epileptiform disorders, particularly in cases difficult to diagnose by ordinary clinical observation, has been greatly facilitated by electroencephalography. Further, the physician has a valuable new technique that enables him to follow the progress of a case and to determine the effectiveness of the medical measures adopted.

Of the greatest clinical significance is the development, through electroencephalography, of a unique method of evaluating drugs used in epilepsy. In fact, electroencephalography has opened up for the medical researcher an utterly new approach to the problems of the profounder effects of drugs on cortical functioning. For example, by means of electroencephalography the effects on the brain of anticonvulsant or sedative drugs used in epilepsy are followed with precision during the very period of the production of such effects. The technique penetrates to deeper physiological levels than have hitherto been attained.

The pharmacological bases of medication in disorders involving the cortex are in process of being refashioned. These investigations are obviously of the utmost significance not just to epileptologists and neurologists but also to every practicing physician who prescribes a sedative, no matter what cortical condition or symptom it is desired to control. Sedatives commonly administered in epilepsy are widely prescribed in general practice.

Lines of Clinical Study

The clinical studies described in the present report extended through a period of two years and provided determinations along the following lines:

1. *Diagnosis of epilepsy.*—In a series of cases of convulsive disorder, the electroencephalograms obtained in the interseizure period showed abnormalities indicating the nature of the disorder. It was possible, on the basis of the electroencephalographic determinations, not only to confirm the clinical diagnosis but also to make diagnoses where clinical findings were obscure.

2. *Determination of point of origin of the epileptic seizure.*—By the refinements of electroencephalographic technique and instrumentation adopted, it was found possible in eighty percent of a series of cases to localize the "sparking point"—the cortical area where the primary disturbance in a seizure takes rise.

3. *Objective observation of progress of patients under treatment for epilepsy.*—Electroencephalography proved to be an invaluable adjunct to ordinary clinical procedures; no other objective means is available for determining and actually measuring the activity (normal or abnormal) of the cortex. The results of medication were objectively determined and the progress of the patients followed by electroencephalography.

4. *Objective evaluation of medications.*—The previous findings (1, 2, 3) that the administration of barbital derivatives is followed by an unphysiological and abnormal increase in cortical activity (as reflected by the electroencephalograph) were verified in chronic epileptics. Barbital derivatives were found to have a dual action: (a) an exciting effect, as proved by the appearance of high voltage fast waves, and (b) their well-known narcotic effect, the empiric basis of their clinical use. Bromide administration was followed by

*These studies were aided by a research grant contributed by the Dios Chemical Company of St. Louis.

diminution of cortical activity, indicating mild sedation without side-effects.

Method

Electroencephalograms were recorded by the standard method, both monopolar and bipolar recordings being made. The electrodes were attached to the scalp by means of collodion, the points of attachment being determined according to the method outlined below.

In the *monopolar* technique of recording waves, an "indifferent" electrode is placed on the lobe of each ear; this electrode may be regarded as inactive. Six other electrodes are placed at specified points between the nasion to the external occipital protuberance. With a three-channel electroencephalograph (used in the present study), simultaneous recordings from three different cortical areas become possible.

The *bipolar* technique records the activity between two active electrodes rather than the activity immediately beneath any one electrode. In recording, many different couplings of electrode pairs are possible.

Bipolar leads facilitate the localization of points of origin of a convulsive seizure (as indicated by the pattern of electrical impulses) and the localization of lesions affecting the cortex directly, as in trauma, tumor growth, abscesses and hemorrhage.

Use of Medications and Their Administration

Because all patients were chronic cases of convulsive disorder, they had been receiving various types of medication through varying periods. Therefore, to obtain determinations under comparable conditions in each case, the following procedure was adopted:

In the control electroencephalographic studies, no medication was administered for at least five days before the recording. In the instance of recordings made after barbital, when sodium ethyl (methylbutyl) thiobarbiturate was given, it was administered in a single intravenous dose of two cc. of a two and five-tenths percent solution. When sodium iso-amylethyl barbiturate was given, it was administered in a single intravenous dose of three and three quarter grains. The drug was administered fifteen minutes before the electroencephalographic recording was begun.

In the studies on bromides, neurosine¹ was given orally for three days prior to the electroencephalographic recording, the daily dose being one-half fluid ounce (forty-five grains of mixed bromides with therapeutic adjuvants). On the day of the recording, one-half fluid ounce of neurosine was given three hours before the taking of the electroencephalogram; another half ounce was administered one hour before the recording.

Cases and Types of Disorder Studied

The patients were selected from among those visiting a large hospital and represent a typical group of patients complaining of a convulsive disorder. All cases received repeated, thorough clinical examinations. The group was made up of seven males and three females, ranging in age from fifteen years to sixty-one years. The average duration of the complaint was nine and eight-tenths years. Table I summarizes the essential information concerning the nature of the complaint in each case.

Table I: Types of Cases Studied

CASE	SEX	AGE	DURATION OF COMPLAINT	NATURE OF CONVULSIVE DISORDER
1	M	24	22 years	Many (ten to twenty) short periods (seconds or less) of unconsciousness daily.
2	F	15	2 "	Loss of consciousness, with muscular twitchings; seizures lasted approximately four minutes; two to three seizures a week.
3	F	48	3 "	Periods of disorientation, vertigo, violent movements of the arms. Seizures once every two weeks (average).
4	M	55	28 "	Many periods of amnesia daily.
5	M	61	2 "	Intermittent attacks (sensation of "fullness in the head") followed by nausea.
6	M	26	10 "	Two to three minute seizures (faintness and spasmodic contractions of facial muscles) about one to three times per month.
7	M	40	20 "	Severe convulsions; loss of consciousness and spasmodic contractions first involving left side of body.
8	M	37	1 "	Weakness in left leg causing lameness; intermittent tremors.
9	M	33	4 "	Loss of consciousness and convulsive movements beginning on right side; seizures occurred once every two months.
10	F	27	6 "	Convulsions while in bed in the early morning. Frequency: once a week.

Diagnosis

The electroencephalograph permits diagnosis during the interseizure period and, in the absence of clinical symptoms, serves to disclose abnormal cortical activity indicative of a convulsive tendency. Paroxysmal discharges are definitely abnormal and strongly indicative of epileptic seizures. Very slow and very fast waves are definitely abnormal and are of diagnostic value in epilepsy. Frequencies below 8.5 waves per second with a voltage above twenty microvolts may signify cortical pathology. Disturbed cortical functioning is also indicated when there is much activity having a frequency above twelve per second and a voltage above fifteen microvolts.

Table II summarizes the electroencephalographic determinations that indicated the ultimate diagnosis.

Localization of the "Sparking Point"

CASE I.—It was possible clinically to determine a point of localization, which was confirmed by the electroencephalographic studies. The clinical findings suggested that the point of origin of the primary seizure disturbances was in the left parietal and/or the left frontoparietal region. That the sparking point was localized in this region was strongly indicated by numerous runs of (abnormal) beta waves in the left frontoparietal region.

CASE II.—No point of origin of the primary convulsive disturbance was suggested by the clinical and

¹Neurosine is a combination of bromides plus therapeutic adjuvants.

anatomical findings. The electroencephalograph indicated (high spiking discharges) a focus of abnormal activity in the temporoparietal areas, with the main focus in the right temporoparietal area (electroencephalograms after a period of no medication and after neurosine). Barbitol induced an increase in abnormal activity so as to obscure the point of primary disturbance.

CASE III.—The electroencephalograph provided fairly satisfactory localization, whereas no clinical localization of the "sparking point" was possible. The brain-wave patterns served to indicate strongly the localization of the sparking point in the right frontal lobe. This focus of activity was observed on three separate occasions.

CASE IV.—The electroencephalograms indicated a primary focus of abnormal electrical activity in the area of the frontal lobes. This localization served to confirm the clinical and anatomical findings.

CASE V.—The electroencephalographic report, when analyzed, showed no focus of abnormal activity and, in view of the clinical and anatomical findings, may be interpreted tentatively as indicating cryptogenic epilepsy.

CASE VI.—Although no clinical localization was possible, the electroencephalographic report indicated localization of the sparking point in the left frontal region.

CASE VII.—No clinical localization was possible but the electroencephalographic report served to localize the sparking point in the right frontotemporal area.

CASE VIII.—Apparently a case in which a cerebral vascular accident occurred in the right parietal area. The electroencephalogram confirmed this clinical localization.

CASE IX.—No clinical localization of the focus of abnormal activity was possible but the electroencephalographic report localized the sparking point in the right temporoparietal area.

CASE X.—No localization possible either clinically or electroencephalographically. It may tentatively be assumed that this case is to be classed as "cryptogenic epilepsy."

Determining Progress of Patient and Results of Medication

The results of medication (bromide and barbitol) were studied by means of electroencephalographic recordings. In this way, not only does the electroencephalograph afford a new means of closely following the progress of the patient but also the anticonvulsants used in epilepsy may be objectively evaluated.

It was found after exhaustive investigations that barbitol excited abnormal high voltage fast activity, whereas bromide medication (neurosine) induced no new activity but merely effected a reduction in amplitude and frequency—"physiological sedation." This is the desired pharmacological effect in the control of epileptic seizures.

Discussion of Results

Abnormalities of the electroencephalogram recorded during the interseizure period were, in nine out of ten cases, strongly indicative of the epileptoid condition and confirmed previous findings that the electroencephalograph markedly facilitates diagnosis in the epilepsies.

Table II: Electroencephalographic Abnormalities in Epileptics

CASE	ELECTROENCEPHALOGRAPHIC ABNORMALITIES (INTERSEIZURE RECORDINGS)	DIAGNOSIS
1	high voltage, fast activity; delta rhythm (slow waves)	sensory seizure
2	high spiking waves	convulsive disorder (epilepsy)
3	some high voltage, fast activity (conspicuous only after barbitol administration)	hysteria (?)
4	high voltage, fast activity; spiking waves, delta waves	post-traumatic sequelae
5	significant amount of high voltage, fast activity	possible cerebral vascular accident
6	much high voltage, fast activity; spiking waves	convulsive disorder (grand mal)
7	prominent high voltage, fast activity; spiking waves	Jacksonian epilepsy
8	high voltage, fast activity	possible cerebral vascular accident
9	high voltage, fast activity; delta rhythm (slow waves) in right temporoparietal region	Jacksonian epilepsy (post-traumatic)
10	much high voltage, fast activity	grand mal

Localization of the primary focus of the cortical disturbance ("sparking point") was rendered possible by electroencephalography in forty percent of cases where clinical and anatomical localization was impossible; in another forty percent of cases, electroencephalographic localization coincided with the clinical and anatomical findings and served to confirm them. The electroencephalographic technique thus increases the accuracy of clinical determinations in epilepsy and yields much enlightening information to the clinician.

Table III: Voltages of Frequency of Brain Waves Averages as Affected by Medication (Bipolar Determinations)

CASE	AVERAGE FREQUENCY*			AVERAGE VOLTAGE**		
	No Medication	After Neurosine	After Barbitol	No Medication	After Neurosine	After Barbitol
1	13.6	13.0	16.3	27.3	23.0	24.7
2	11.9	11.9	10.3	31.9	33.7	41.7
3	11.2	10.0	12.0	18.4	19.3	28.6
4	11.8	11.5	16.8	36.8	22.10	31.8
5	12.8	9.11	10.7	24.2	20.4	24.2
6	11.5	11.3	13.1	23.1	11.5	20.4
7	16.0	14.9	20.0	22.3	30.0	30.5
8	16.7	11.0	17.0	27.1	21.8	29.2
9	7.4	8.5	7.3	17.5	23.4	21.11
10	17.11	13.9	19.7	30.1	23.4	34.7

*Cycles per second.

**MICROVOLTS

Localization of the sparking point has always been of prime interest to the epileptologist; electroencephalographic recordings in the large majority of cases (eighty percent in this series) now permit satisfactory localization. New advances in both theory and practice will surely follow.

Because the electroencephalographic technique objectively reflects measurable manifestations of cortical activity and because these objective determinations have been proved to be of the utmost significance in epilepsy, clinicians have in the electroencephalograph

an instrument that acts as a guide to management of the epilepsies. In the present series of cases, the electroencephalographic technique provided information regarding the effects of various medications on cortical functioning (particularly in the epileptic) and thus served as an objective means of evaluating the different anticonvulsants.

Table IV: High Voltage, Fast Activity Before and After Medication (Bipolar Determinations)

(Average, all leads: (a) Frequency above twelve cycles per second. (b) Voltage above fifteen microvolts)

CASE	FREQUENCY*			VOLTAGE		
	No Medi- cation	After Neuro- sine	After Barbi- tal	No Medi- cation	After Neuro- sine	After Barbi- tal
1	17.5	15.0	18.0	26.7	27.5	31.0
2	20.0	17.5	15.0	40.0	30.0	75.0
3	15.0	**	17.5	27.5	**	37.5
4	14.5	15.0	19.4	33.8	20.0	32.5
5	16.3	**	15.0	31.3	**	32.5
6	18.3	15.0	16.5	31.7	25.0	23.6
7	17.5	16.9	20.0	26.7	30.6	30.4
8	19.3	15.0	18.8	30.7	25.0	30.0
9	**	**	17.5	**	**	32.5
10	20.0	15.7	21.0	32.5	30.7	37.5

*Cycles per second.

**No high voltage, fast activity.

The rise in both frequency and voltage of the brain waves after barbital observed by other electroencephalographers studying psychiatric patients has been shown to occur in chronic epileptics. It has been further determined that the remarkably increased but unsteady electrical activity after barbital is prolonged beyond the period of maximum activity of the drug. Barbital attains its maximum effect within a few minutes (less than fifteen minutes) after injection. In all the cases herein described, barbital was administered fifteen minutes before the electroencephalographic recordings were begun. Thus the barbital-induced disturbance of cortical activity is not a quick-

ly evanescent manifestation. Unless the patient later falls into a deep sleep, the waves characteristic of normal sleep do not appear. When the patient falls asleep and is afterwards aroused, the abnormal activity of the cortex resulting from the peculiar side-effects of barbital reappears, as already demonstrated by Brazier and Finesinger (3).

No new (abnormal) electroencephalographic patterns were observed after bromide medication. A gradual reduction in voltage and frequency of the brain waves consistently followed bromide administration and signified "physiological" lessening of cortical activity, i.e., mild sedation. These findings show that electroencephalography has practical application in the pharmacology of epilepsy.

Summary

In a series of studies on epilepsy, the electroencephalographic technique facilitated diagnosis during the interseizure period, permitted localization of the sparking point, and objectively indicated the results of medication and the progress of the patient. The electroencephalograms showed that bromide medication reduces the abnormal high voltage fast activity characteristic of the convulsive state and has no detectable side-effects. The findings of other investigators, that barbital derivatives characteristically excite an increase in high voltage fast activity in the cortex, were confirmed.

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247 PARK AVENUE

PROGRESSIVE IDIOPATHIC ATROPHY OF THE SKIN WITH DEPIGMENTATION

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Report of a Case

The patient E. T., married, a housewife, aged forty-five, presented herself for examination May 8, 1945. Her family history revealed little of importance relative to her dermatosis; however, her past history was of interest and might shed some light on the etiology of the affection. She is the mother of two children. There was no history of serious illness, except for an attack of influenza several years ago. Her menopause set in early, at the age of thirty-five, at which time she had a D and C operation performed for reasons unknown to me.

About January, 1944, she noticed a few lesions: one was situated on the left supraclavicular region, and was quite pronounced, while two others could be observed on the face, rather faintly discernible. There were no subjection symptoms.

Inspection revealed a zone of depigmented dermatosis at the site of the first location. This area was about six centimeters in circumference, ovoid in shape, and lost itself imperceptibly in the adjoining normal skin. She complained neither of tenderness nor pruritus, nor was there any loss of sensation in the part involved upon pricking the lesion with a needle. The dermatosis appeared wrinkled or "corrugated", resembling cigarette paper. The corrugated epidermis could be readily picked up between the fingers, thus ruling out the possibility of scleroderma and morphea. The serology and blood chemistry were negative and the blood count was normal. Urinalysis was likewise negative. The patient's blood pressure was very low, 90/60, and she complained of considerable fatigue and asthenia, being at times unable to do her daily housework.

A diagnosis of depigmented idiopathic atrophy of the skin was made on May 23, 1945. New lesions of atrophy were noticeable on the upper portion of the neck and at the margin of the hairy scalp. Her hair, however, maintained the natural color and lustre, and did not exhibit coinities.

Treatment.—Whereas no definite etiological factor could be established for this dermatosis, save, perhaps, the premature menopause and the low tension, pointing to a suprarenal cortex deficiency, treatment was instituted with the intramuscular injection of suprarenal cortex extract or eschatin, beginning with 0.25 cc. and gradually increasing to one cc. twice weekly, in conjunction with the oral administration of arsenic, gold and sodium chloride, suprarenal cortex and anterior pituitary extracts.

No changes were observed in the individual lesions up to November 27, 1945, except a faint repigmentation in the larger lesion. A few more areas have since appeared on the right subclavicular region, with the characteristic depigmented epidermal corrugations. However, her tension has markedly improved, rising to 115/80 and she does not feel as much fatigued as before.

The prognosis in this case is problematical. The same treatment, however, will be continued for some time.

What Is Idiopathic Atrophy of the Skin?

Its terminology fully discloses it. The literature which I have consulted is unfortunately meagre. The term *idiopathic* is suggestive of our ignorance as to a causative factor or factors underlying this cutaneous disorder. The causes for the time being are obscure. Finger and Oppenheim submit the following theories:

1. Some internal or intrinsic causative agent acting upon a predisposed skin.

2. An external or extrinsic factor or agent acting upon a predisposed skin.

These theories or hypotheses do not seem to explain those cases, where the skin appears normal, and where—as in this case—no previous dermatosis had been noticed. In the case under consideration, we have two factors, which must not be overlooked, viz: Premature menopause, asthenia, due to very low tension, which point to an endocrine deficiency, in particular that of the suprarenal cortex. I offer this hypothesis in view of the fact of the heightened tension after the intramuscular injections of eschatin.

The symptomatology delineated in the case reported gives a pretty accurate picture of atrophy of the skin. It can readily be differentiated from scleroderma or its less pronounced type—morphea, by the fact that the skin is not “hidebound”, is freely movable, and can be readily raised from the subcutaneous tissue, which is not the case in scleroderma. The epidermis in this case is wrinkled, “corrugated”, and depigmented. The presence of sensation, when pricked with the point of a needle, enables us to exclude leprosy of the anesthetic type. Lues is out of the question. Leucoderma of luetic origin appears only in the form of a neck band or “necklace” around the neck and on no other part of the body. The history of this case and the negative serology will positively rule out lues. From leucoderma it may be differentiated by the absence of wrinkling or “corrugating”, leucoderma being essentially an anomaly of pigmentation. The cardinal features to be remembered are: wrinkling or corrugation of the epidermis with depigmentation and its cigarette paper-like appearance.

I conclude, therefore, that the only diagnosis which fits the case is progressive atrophy of the skin with depigmentation.

656 MACABEES BUILDING

A DAY IN THE OFFICE OF A PSYCHIATRIST

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Within the last few years there has been a tremendous increase in nervous and mental disorders, with the result that the public is assuming a greater interest in problems of the mind than ever before.

The large number of 4-F's classified “psycho-neurosis” and those medically discharged because of a nervous or mental disability has contributed much toward making relatives of these groups as well as their friends “psychiatry-minded”.

This modern trend of interest in the emotionally maladjusted has inspired many of the Hollywood producers to present a series of pictures with psychiatric plots, such as *Lady In The Dark*, *Gaslight* and a host of others, too numerous to mention.

This final awakening to the importance of recognizing the effect which emotional conflicts have on one's health, was inevitable. Today the mental health situation is critical and will be more so after the war. Dr. Stanley Cobb, chief psychiatrist of the Massachusetts General Hospital, claims that there are about six and a half million people in this country who suffer some form of mental disorder. Thanks to the U.S. Public

Health Service, plans have already been adopted to meet this challenge. However, there is much that the medical profession can do in the meantime to alleviate the situation.

For one thing, general practitioners of medicine should assume part of the responsibility, by attempting to differentiate more clearly between symptoms of psychic origin and those having an organic basis. The matter of sidestepping any embarrassment in referring a patient to a psychiatrist can be handled quite tactfully. Misconceptions about a psychiatrist should be cleared up. He is not a physician who devotes his time to the treatment of the “insane”, but one qualified to understand emotional frustrations of everyday life in relation to health; one capable of guiding and assisting individuals gainfully employed (and not necessarily psychotic) with their personal problems; one who investigates the “emotional implications” of symptoms for patients of other physicians.

The question is invariably asked, “What type of case does one generally refer to a psychiatrist and what conditions are most amenable to psychotherapy?” This

question may best be answered by illustrating the type of case material one encounters in a day's psychiatric practice. It demonstrates clearly and convincingly the importance of psychic factors in the disease-symptoms of patients.

Illustrative Cases

CASE I.—Frigidity, insomnia, depression and suicidal attempt. The patient was an adult woman, aged thirty, of neuropathic heredity, married and had a daughter twelve years old.

1. *Complaint problem:* She complained to her physician of insomnia and having been acutely depressed to the extent of attempting suicide by gas.

2. *Anamnestic data:* The family background consisted of a highly neurotic mother, and a father who was sadistic, high-strung and a philanderer. The patient was regarded as being the least attractive member of the family. As a child she had to do most of the menial work, including looking after her baby brother. In the course of her sessions, we learned that she had been unable to achieve an orgasm during coitus with her husband. This orgasm-incapacity existed throughout her married life, causing her considerable distress.

3. *Psychogenic factors:* At the age of fifteen she experienced the psychic trauma of being raped by an elderly man. She began to hate men in general, as well as herself, for having forfeited her virginity. This "secret" of having been premaritally seduced, she bore up to the time of her coming for treatment. The feeling that she had deceived her husband inspired the belief in her that the frigidity was her just punishment for her "secret" sin.

Discussion: We saw how the patient's marital happiness had been short-circuited by the psychic trauma which she had suffered in adolescence. She had projected her antimale feelings that came as an aftermath of her experience onto her husband and her strong sense of guilt prevented her from assuming a normal attitude toward coitus. The frigidity was due to an early traumatization of her sexual libido which became converted into an anxiety symptom—insomnia. The mental catharsis released the guilt feelings. Insight therapy enabled her to appreciate the relationship of her "sexual accident" at the age of fifteen, to the development of her marital "psychic" frigidity. Gratifying results were achieved after several months of analytic psychotherapy.

Women who suffer from frigidity are bound to manifest neurotic symptoms. Their neurosis is often disguised in symptoms simulating those of organic origin. Cases of frigidity respond to psychoanalysis, but like all other branches of medicine, the cure is dependent upon a number of factors—the cooperation of the patient, the cooperation of her husband, particularly if faulty technique is a factor, and the ability of the patient to put into practice the insight they have gained through psychotherapy.

CASE II.—Diurnal Enuresis: The patient was thirty-one years of age, an accountant, single, employed in his father's place of business.

1. *Complaint-problem:* Inability to control bladder function, resulting in embarrassment. On many occasions he would wet his trousers while talking to someone, hence he found it necessary to wear a rubber urinal bag strapped to his leg seven days a week. A

genitourinary check-up revealed an absence of any organic pathology.

2. *Anamnestic data:* The patient's father was extremely neurotic. He once attempted to commit suicide by shooting himself. The mother died when the patient was an adolescent. He had been much attached to his mother and became very depressed following her death. Although he was quite introverted as a child, he became more so in later years. The father remarried and the patient found that he did not like his stepmother too well. He worked in a laundry but lost his job for reasons he could not ascertain. It was shortly afterwards that he developed a psychosis diagnosed as schizophrenia and was institutionalized. Other significant data included the death of his stepmother, masturbation to excess associated with feelings of guilt, the death of his brother in service, the patronage of brothels and employment difficulties following his discharge from the hospital.

3. *Psychogenic factors:* In reviewing the case, we noted a number of psychogenic factors responsible for the development of the patient's condition. There was an overattachment to the mother and feelings of repressed hostility toward the father. The incontinence represented an unconscious regression to infancy (what the French call a *retour a l'enfance*). There was also the element of urethral eroticism motivating the symptom (a masturbation equivalent). Through the enuresis also he expressed his hostility directed toward the father (urethral sadism). Fear and anxiety were two emotions that became involved. Incidentally his father also suffered from an "irritable bladder". The patient's awareness of this symptom in his father served to establish a father-son identification, a mechanism that is often misconstrued as hereditary.

Discussion: Psychotherapy did in this case what insulin failed to do. One cannot hope to gain insight through "shock therapy". There is ample evidence to prove that in neuroses and functional psychoses the pathology is to be found in the patient's insight which has become defective. Insight-therapy enabled this patient to discard the wearing of his urinal bag with success. The incontinence was definitely psychogenic and it had previously failed to respond to all other therapeutic measures. It is safe to conclude that the enuresis was a symptom manifestation of chronic anxiety aggravated by intrapsychic conflicts.

Not all cases referred to a psychiatrist are amenable to psychotherapy. Occasionally, much to our surprise, in conducting a neurological examination we discover some organic condition responsible for the personality pathology. For example, some time ago a patient was discovered to have had a brain tumor. He complained of headaches and lethargy. Examination aroused our suspicion of a cerebral neoplasm, and he was referred to a neurological clinic where the diagnosis was confirmed. A brain operation was performed, but the patient died shortly afterwards. It was a relief to know that this patient was not treated through psychoanalysis for what appeared to be "neurotic headaches".

CASE III.—Impotence. The patient was an adult male, aged thirty-four, of healthy heredity, married and had one child.

1. *Complaint problem:* The patient complained of having lost his ability to carry on adequate sexual re-

lations with his wife. She had been cooperative but he stated that he developed a gradual sexual apathy resulting in complete impotence at the time of seeking treatment.

2. *Anamnestic data*: Whenever he failed in an attempt at coitus he blamed it on his being fatigued from overwork at the office. His wife induced him to take a vacation, and when this produced no response, he became worried and sought psychiatric treatment. The patient was as shy as a child. He had had little premarital heterosexual experience, and boasted that he accorded women the same respect shown his sister.

3. *Psychogenic factors*: There was quite a strong attachment to his sister whom he idolized. She was very affectionate and demonstrative in her love for him to the extent that his wife could no longer tolerate these unnecessary scenes of brotherly and sisterly affection. The wife and sister, incidentally, were of opposite types. His dreams betrayed his unconscious fixation to his sister and he presented a number of masturbation fantasies in which his sister played a dominant rôle.

Discussion: In cases of impotence the analyst is on the defensive. The patient evaluates the success of the analyst in terms of physiological results. The restoration of his potency was the best proof that the psychogenic factors responsible for the impotence had been eliminated. We exploded the wishful notion that his impotence was due to fatigue from overwork. There are many such cases of primary impotence resulting from family fixations that are attributed by the patient to secondary or manifest causes.

CASE IV.—*Vertigo*. The patient was a thirty-one year old man, single, who had been classified 4-F with a diagnosis of psychoneurosis, mixed type.

1. *Complaint problem*: The patient had consulted a physician for dizziness and chronic headaches. X ray of skull was negative. There was nothing organic that could be found to account for the symptoms.

2. *Anamnestic data*: The vertigo developed shortly after the patient was rejected at the induction center. There was evidence of a developmental neurosis beginning in childhood. Because of his anxiety and neurasthenic ailments, he was considered a potential risk for military service. He stated at the time of his examination that he was extremely nervous and was in conflict as to whether to mention his symptoms or deny them. His mother suffered for many years with hysterical neurotic symptoms, his father had a somewhat neurotic temperament, and his sister was described as being "nervous". There was considerable incompatibility between the parents, and the patient said he had always been afraid since childhood.

3. *Psychogenic factors*: One runs into a number of similar cases, where patients who had been classified as 4-F's develop acute anxiety symptoms and seek psychiatric help. Upon interviewing these men a strong sense of guilt is uncovered. Our patient, for example, admitted that whenever he saw a soldier wearing an overseas ribbon and having a disability of some kind, such as a missing arm, he would suffer a dizzy spell, and felt as though he were going to faint. When a friend asked why he was not in uniform the vertigo would return. Such evidence points to a guilt neurosis as the result of a conflict between a feeling of being a coward and a desire to become a hero. However, all

through the patient's life, prior to Pearl Harbor, there was much evidence of neurotic symptoms, feelings of inferiority and insecurity.

Discussion: Of course other factors were involved. If there is any apparent oversimplification of these cases, it is because it would take entirely too much space to elaborate them. To get back to this particular patient, the nucleus of his guilt was traced to his relationship to the members of his family. He is still undergoing analysis and says his vertigo has subsided to a considerable extent.

CASE V.—*Acute torticollis*. This case concerns a young girl, aged twenty-eight, single, of hysterical temperament, who found it necessary to discontinue working because of pain in the muscles of her neck and shoulders.

1. *Complaint problem*: Sudden pain in the muscles of the neck and shoulders resulting in a torticollis which failed to respond to physiotherapy and other therapeutic measures.

2. *Anamnestic data*: The patient's father was a poor provider, indifferent to his children and inclined to exhibit psychopathic tendencies. The mother was described as a hypochondriac. She left her husband because of incompatibility and came to Washington to live with her three daughters, all sharing a small two-room apartment. The patient said she could not tolerate living under such crowded conditions and despised her mother because she continually nagged her about one thing or another, particularly about her going out with the opposite sex.

One evening she went out on a moonlight cruise down the Potomac and stated that after resting her head on her boy friend's shoulder, she experienced difficulty in straightening her neck to its original position. The next morning the neck was drawn to one side and this persisted for several months. When she could no longer tolerate the embarrassment of being teased at work by the other girls, she discontinued work. She wept frequently, became depressed and worried about becoming a permanent invalid.

3. *Psychogenic factors*: It is interesting that the neck was drawn to the side that was resting on the man's shoulder. We suspected that in contrast to all her unhappiness at home, she wished to remain forever contented in the arms of her loved one. The manifest explanation she offered was that she had been exposed to a draft and had caught a muscle cold. But the latent evidence pointed to a deeper unconscious mechanism operating (a wishful phantasy to remain in the same position of contentment close to her husband-to-be).

Discussion: She was advised to move, and it was remarkable how much she improved after detaching herself from her former painful environment. The torticollis responded to psychotherapy. To quote her gratitude, which she expressed in writing at this point would tend to give the reader the impression that this case was presented as a testimonial advertisement for psychoanalysis. A change in environment in itself will not cure a neurosis. Insight therapy plus a new and healthier environment is the combination that generally proves effective.

CASE VI.—*Marital incompatibility, vaginismus in wife, impotence in husband*. This case involved a rather unusual combination of a husband suffering from im-

potence married to a woman suffering from frigidity. On the surface one would think there was no problem—that both partners would reconcile themselves to each other's sexual disability. This, however, was not the case, as will be explained.

1. *Complaint problem:* The wife, although suffering from vaginismus and frigidity, threatened to divorce her husband unless he agreed to psychoanalytic treatment. She also decided to sue for divorce in the event that her husband failed to respond to psychotherapy.

2. *Anamnestic data:* At the time the husband was courting his wife, she had been going with a rival suitor. She claimed she loved this other person and considered him the more eligible candidate for marriage. The husband, however, succeeded in persuading his wife to make the decision in his favor. On the honeymoon night she began to cry and began thinking of the other person (ghost love in phantasies of psychic infidelity). She humiliated her husband, and went so far as to confess that she had been intimate with her former lover, and that his technique of lovemaking was superior. The husband, of course, upon learning of this prior attempt at coitus, became impotent. Things went from bad to worse. They quarrelled over trifles until it led to a threatened separation.

3. *Psychogenic factors:* The wife belonged to the "masculine protest" type as described by Alfred Adler. She was aggressive and extremely career-minded up to the time of marriage. She psychologically "castrated" her husband, by sadistically confessing her premarital intimacies prior to a honeymoon coitus. The husband, on the other hand, was weak, passive and infantile. He was more masochistic than sadistic. He idealized women, and was greatly inhibited and inexperienced. However, there was a sadistic component at work in his impotence, for he unconsciously gained revenge satisfaction by leaving his wife out on a limb, so to speak. His penis was insulted and it behaved accordingly. When he began to regain his potency, she developed "vaginismus" which we felt served as an outlet for her sense of guilt arising from her psychic infidelity. There was also one other potential explanation, namely, she wished to restore her virginity psychologically by bringing about the difficulty of penetration found in virgins. This clue was gathered from a statement she made relative to her chastity premaritally.

Discussion: Analysis of both husband and wife revealed the psychogenesis of their sexual neuroses. Their relationship has improved to a point where they have decided to remain together. Their marriage had been definitely a competitive one emotionally and sexually.

CASE VII.—*Acute panic and fear of death, compulsive masturbation, and agoraphobia.* This case concerned an attractive young girl of sixteen brought up in a heavy religious background.

1. *Complaint problem:* The patient suddenly developed a fear of dying, and began crying hysterically at home and at school. Her mother tried to pacify her, but could not explain the reason for her daughter's behaviour. She was afraid to be alone and decided to stop attending school.

2. *Anamnestic data:* In an initial interview she confessed that she had masturbated almost daily since childhood and felt extremely guilty about it. She had

confessed this to no one. She finally decided to take a solemn oath to God that she would give up this practice, and instructed God to cause her death in the event that she broke her word to Him. Five minutes after taking this oath she broke into an acute hysterical panic state. Her parents had been very strict, and had instilled in her a fear of sex, stressing the proverbial warning that the "wages of sin are death". Sedatives from her physician failed to quiet her, and she kept reiterating that she would die the next morning.

3. *Psychogenic factors:* It was quite obvious that it was not the masturbation *per se* that caused the panic, but the feelings of guilt associated with it. The fear of death was actually an unconscious suicidal wish to die as a self-punitive penance for what she regarded as a "mortal sin".

Discussion: Conflicts between religion and sex are numerous among patients frequenting offices of psychiatrists. Mental catharsis in this particular case served as an outlet for her guilt. It took considerable psychotherapy to bring about a satisfactory solution to her conflict. Psychoanalysis offers individuals suffering from "inflammation of their conscience", a therapeutic opportunity to unburden the weight of their guilt. This by itself plays a major rôle in the final recovery of the patient.

CASE VIII.—*Arthritis with phobia of water and bathing.* The patient was a woman, aged forty-one, an Armenian, married, no children, born in Iraq of healthy heredity.

1. *Complaint problem:* She insisted that the pains in her arms and joints were due to chronic rheumatism, although physicians tried to convince her that they could find no clinical or objective evidence of any arthritis.

2. *Anamnestic data:* She came from Iraq to this country at an adolescent age. She informed us that her brother, to whom she was much attached as a child, was drowned in a river while swimming. The current had been too strong for him. She confessed that she had never gotten over his death, and dreamed about him frequently. Incidentally, the body had never been recovered. She married a tailor, and helped him by sewing for a period of nine years. She finally had to stop working because of the numbness in her fingers, which she said spread to her joints and muscles. Her marriage had been an unhappy one because her husband was unsympathetic and inconsiderate.

3. *Psychogenic factors:* Analysis brought forth a correlation between a phobia of water and the drowning of her brother many years ago. She claimed that whenever she saw a river, or crossed a bridge she was reminded of her brother. She also stated that when she washed herself with a wash cloth, she noticed the pains were more acute and felt she was allergic to water. As a result she stopped taking tub baths, and tried to get by with a weekly "sponge bath". The evidence pointed to an unconscious association between water and the psychic trauma of her brother's death. The numbness of her hands and arms symbolized a somatic excuse for not being able to work for a husband who was unsympathetic. It also symbolized a partial physiological death (extremities that felt numb and "dead"), regression or desire to join her brother. She said she never trusted herself near a river, and

even became afraid when she took a tub bath (a disguised suicidal component). She has a phobia of water because water unconsciously is the medium that has not only brought about the death of her brother, but the disintegration of the body that was never recovered.

Discussion: This patient came for a number of sessions and then decided to leave for Florida. We were not able to follow up the case to determine whether or not the amount of psychotherapy she received had any lasting effects.

CASE IX.—*Insomnia, nightmares and anxiety.* The patient was a woman, aged fifty-two, who became emotionally unstable following the departure of her son for camp.

1. *Complaint problem:* She began to suffer from nightmares, thinking that her son would be killed. These "bad nights" resulted in carry-overs as a result of which she felt miserable the next day. She was under a physician's care, but failed to respond to sedation.

2. *Anamnestic data:* She threatened to commit suicide if anything happened to her boy. She had always been nervous and high-strung. Her husband gambled and philandered. The son was an only child.

3. *Psychogenic factors:* Just as one would expect, an only child often becomes the victim of his mother's Cornelia complex (a strong attachment of a mother for her son). She had made her son a husband-substitute, and had displaced the affection which was unappreciated by the husband on to her son.

Discussion: Through the cooperation of the American Red Cross we were able to get a ten-day furlough for her son, and this served as a means of bringing the mother under control. When her son returned to camp, the mother was better fortified to withstand the separation. We also tried to point out to her the unhealthy nature of her emotional relationship to her son, and obligated her to exercise sufficient self-discipline to prevent any impending emotional breakdown.

CASE X.—*Depression and anorexia nervosa.* The patient was a young woman, single, aged thirty-five, who said that she resented her mother since the age of puberty.

1. *Complaint problem:* Frequent spells of depression, generally occurring at the time of menstruation, followed by anorexia nervosa.

2. *Anamnestic data:* We were told that when the patient first menstruated, her mother told her that she "smelled bad". The mother worked and the children were brought up by a maid. The mother favored her two sons and constantly found fault with the patient. When the daughter became negativistic and rebellious during adolescence, she had her institutionalized for mental observation. The patient never forgave her mother for this.

3. *Psychogenic factors:* Menstruation in this girl's life represented a stimulus reminder of an unpleasant adolescent relationship to her mother, which reactivated her hostility against the mother and hence caused her to be depressed. Neurotic unhappiness is a common sequel to daughters who entertain ambivalent feelings toward their mothers. Husbands often become victims of this projected hostility.

Discussion: Menstruation is often the scapegoat of many neurotic ailments to the extent that several

books have been written on the subject. In this case, the patient was conditioned to a negative attitude toward menstruation (conditioned badly through her mother's statement that she "smelled bad"). She developed feelings of having wished she had been born a boy, since her brothers were favored by the mother. This was evidenced in her disguised renunciation of her sex, associating menstruation with that which was unpleasant—the source of her happiness.

Summary

1. The present incidence of nervous and mental disorders should inspire a greater cooperative relationship between psychiatry and the general practice of medicine. "The honest physician is being put in a position of greater responsibility, and he will have greater skill in handling his patients the better he understands the whole problem of psychosomatic disorders." (O. S. English).

2. Our illustrative cases should demonstrate that conflicts in the personal life of patients lead to abnormal emotional reactions which disturb physiological functioning. It was impossible to venture into a detailed analysis of each case. Hence we were obligated simply to scratch the surface, as it were, being concerned only with showing the correlation between mind and body—psyche and soma.

3. Frigidity and impotence may be responsible for a multiplicity of psychosomatic complaints. These conditions are amenable to a psychodynamic approach, and the prognosis is essentially good if the individual concerned radiates a cooperative "will to be cured". "Barring a certain number of cases which have a physical basis, the larger number of cases of impotence are of psychic causation. Diagnostically the condition should be regarded as a hysterical conversion reaction. In the majority of cases, rational psychotherapy offers the only reasonable approach and many cases can be cured or improved within a short time." (Karpman).

4. The duration of treatment depends on each individual case. It is a variable factor depending upon the patient and the particular condition he suffers from. Some conditions respond to relatively little treatment, while others require deep psychological therapy over a prolonged period of time.

5. Guilt, inferiority, hostility are examples of "psychic toxins" capable of producing a state of "emotional intoxication" in an individual which in turn affects the physiology of various organs of the body. Mental catharsis tends to abort the serious consequences of these enemies of the mind. In this sense we might regard psychoanalysis as a therapeutic process of detoxication.

6. One encounters in the office of every psychiatrist numerous cases of marital incompatibility. The majority of marital problems fall into two groups—the "impossible marriage" and the "maladjusted marriage". In the former we get no cooperation from either husband or wife. In the latter group, the unhappiness is due to complexes, generally premarital in origin, which can be remedied; these individuals wish to save the marriage, and are willing to demonstrate to each other their cooperation. In analyzing married couples it is essential to bring to their attention their premarital complexes, showing how these can affect the marriage.

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Editorials

Doctor Butler's Farewell

Nicholas Murray Butler is known to thousands of American physicians, to some personally, and to many others through his years of labor as educator, philosopher, lover of peace, and great American statesman "without portfolio". On January 12, 1946, he published his final report, not only to the trustees of Columbia University but to the world at large. This writer recalls vividly the inauguration of Dr. Butler as president of Columbia. At that time he was an undergraduate medical student at the old College of Physicians and Surgeons on Fifty-ninth Street at Amsterdam Avenue. It was a gala occasion, and an extraordinary number of scholars and teachers were present as representatives of universities and schools the world around. We remember, in particular, the thrilling moments when Dr. Butler was accompanied by "the old T. R." as they marched down the library steps past the statue of Alma Mater, clad in frock coats, high hats, spats, and carrying canes. Both were then young and spry of step, full of enthusiasm of early adult manhood, out to conquer the world. One has long since "shuffled off this mortal coil" full of honors, a great historical figure.

Last June at commencement, behold the contrast of an aged man, almost blind, feeble of limb, supported upon the arm of the secretary of the university, marching as best he could to the music from Tannhauser which is so fitting for such an occasion, yet adding dignity and solemnity, and reciting in firm and easily heard sentences the awards of "degrees" to many recipients, both honorary and "in course." What was in his mind and heart no one may say; for there was no evidence of sentimentality or even an allusion to the moment of parting. Perhaps it were better so. However, the world in general should long remember the greatness of the man and ponder his wise and well-matured counsel upon various occasions.

The best interests of the medical profession have always been near to President Butler. Of the Medical Center, he says: "In war as in peace . . . it never ceases to contribute to scientific progress and to public welfare." He mentions a proposed building to be erected between Riverside and Westside Drives to house laboratories for the Department of Health, the Public Health School of the City of New York, Inc., the University School of Public Health, and a new hospital for the study and treatment of tropical and contagious diseases. All of these are to be set up in the interest of better health for the citizenry.

The integration of the department of dentistry into

the University proper has received considerable notice in the newspapers; much of it adverse. Opposition has been chiefly from the dentists who, naturally enough, wish to remain independent of medicine. However, dentistry as a specialty of general medicine has been discussed pro and con for twenty years or so, and the trend has been toward such integration for the benefit of both professions. "Dentistry", says Dr. Butler, "has reached a highly accredited professional level and will in no sense lose its identity by the integration with medicine. The two fields of service should benefit mutually by the coordinated plan of training." Diseases of the mouth are numerous and often go undiagnosed. The dentist should be concerned with much more than disorders affecting teeth and gums; for he may be the first to recognize cancer of the tongue or tonsils, or secondary syphilis before the patient "sees a doctor." Out of this has come a rather new specialty called stomatology, but it is questionable whether we need any more labels to cover certain corners or areas of the human body. The dentist, to be sure, ought to be a stomatologist, but the stomatologist need not be a dentist. In both fields the ear, nose and throat specialist should be acutely conscious of pathological conditions, and no physical examination is complete unless the examiner looks at the gums, studies the subglottic region, and inspects the entire buccal mucous membrane. This fact is going to be more in evidence when returned service men appear in clinics and private offices with symptoms and signs the interpretation of which in an early stage may make or break future happiness.

All of this ties in with Dr. Butler's final word to each and all of us: "Public service of the highest and most enduring type, and human character of the noblest must remain" the goal toward which every physician must turn if he shall live out a well-rounded life.

Commercial Drug Houses as Educators in Medicine

Recently there came to this desk three little brochures clothed in modest pasteboard covers, but loaded with good medical pabulum between those covers. These side-pocket slip-ins are prepared, published and sent gratis to those physicians who seem to be sufficiently interested to go to the trouble and expense of placing them in receptive hands, by the Armour laboratories. This is an earnest of the desire of "commercial houses" to be of genuine practical service to the doctor, and it calls for recognition by the recipients.

Armour's *Atlas of Hematology* was first brought out in 1939. It was revised in 1942, and now again in 1945. The "house" recognizes that it is a departure from the usual pharmaceutical literature which fills the doc-

tor's mail, and, we fear, the waste basket as well. Here we have actual clinical case histories of blood dyscrasias with colored plates showing the microscopic findings in the blood stream and marrow. "Knowledge of the Origin and Development of the Red Cells" is the first-page title with "A Normal Blood Picture" just opposite. Then come colored pictures of all kinds of "cytes" and platelets in profusion. Each of these is described in brief textual fashion, followed by some notes on anemia and pernicious anemia, analysis of gastric contents for hydrochloric acid in the study of anemia patients, the anemia of pregnancy, agranulocytosis, secondary anemias, the anemias of infancy and childhood, and so on. There is a tabulation of cases successfully treated with Armour liver products, and some facts about mononucleosis and icterus. Here is all that the man in everyday practice needs to know about the blood and its disorders, but if he yearns for more, a complete bibliography supplies him with references enough to last a lifetime.

The second *précis* deals with the thyroid gland and the clinical use of medicinal thyroid. The same excellent paper and print, and the graphic illustrations in color, are again striking and informative. Beginning with a résumé of the anatomy, one is quickly introduced to the biochemistry of the thyroid hormone. There follows, a chapter on physiology, the inter-relationship of thyroid to other endocrine glands, then the deviations from normal as found in simple goiter, hypothyroidism, cretinism, myxedema, toxic goiter, malignancies and inflammations of the thyroid, and diverse therapeutic uses of thyroid preparations. The little volume is dedicated to Frederic Fenger, whose pioneer researches have contributed so much to our present-day knowledge of the thyroid gland and its function and dysfunction.

Finally, what may be called a "pituitary primer" of some sixty-eight pages attempts to summarize authoritative opinions based on studies of the pituitary, its uses in the body economy, its disorders and the symptoms therefrom, and the practical administration of such "juices" as organic chemists have been able to isolate. From the earliest times, the pituitary has always interested anatomists and physicians. The Greeks thought it had something to do with saliva; hence *pituito* which a learned friend says means *spit*. We are not quite sure, however, of the accuracy of his observation, but it is good enough to be true. Here the gross relations of the skull and brain to the hypophysis are shown in diagrams and in x ray studies. Then the development of the gland, its cytology, the microscopy of the anterior lobe cells, the experimental results of hypophysectomy in rats, the relationship to sex, control of growth, leanness and fatness, etc., are described. The therapeutic uses of these hormones are

somewhat limited, but obstetricians have favored pituitary liquid to stimulate uterine contractions when indicated. However, it is not to be used until after delivery of fetus and placenta. It is helpful in checking uterine bleeding especially in Cæsarean technique. Pituitary can raise low blood pressure in shock, promote intestinal peristalsis, and relieve tympanites. Indications for administering both the anterior lobe and posterior lobe preparations are set forth.

We believe that the information supplied by the researchers in the Armour laboratories is worthy of confidence, and all of us can say a word of thanks for their unselfish devotion to scientific ideals. Praise goes also to the "capitalists" who furnish enormous amounts of money for this research, often with little or no hope of "financial return."

Duchenne and Charcot

These two outstanding neurologists were contemporaries, but strangely different in type, in brain power, and in temperament. Duchenne was several years older than Charcot.

Guillaume Benjamin Amand Duchenne (1806-75) was descended from a long line of seafaring people at Boulogne and it was an inborn love of science which impelled him to forsake the life at sea which his ancestors had followed for generations and betake himself to Paris to follow his own bent. And he was successful. After spending a few years in Paris, where he studied under Laennec, Dupuytren, Magendie and Cruveilhier, and graduating, he returned to his native town and practised there for some years. He then settled in Paris and devoted the remainder of his life mainly to neurology. He went his own way, a way which to the conventional city physicians seemed eccentric, and provoked smiles and sneers. All the time, however, he was gathering and storing knowledge, some of which he transformed from its current forms with his original ideas. At least he expressed original views upon several types of neurological conditions. For example, in regard to infantile paralysis, which, although Jacob Heine had described it as a spinal lesion, was generally regarded as an atrophic myasthenia from inactivity. Duchenne pointed out that so profound a disorder of the locomotor system must come from a definite lesion and, moreover, he located this lesion in the anterior horns of the spinal column. This view was afterwards confirmed by Gull, Charcot, Cornil and Vulpian. He was the first to distinguish between the different forms of lead palsy and of facial paralysis from lesions of the brain or nerves, including the rheumatic and lacrimal forms.

Duchenne did great things, particularly in his special field, the spinal cord. He had the drawbacks of his temperament. He would follow a disease or condition to the end with imperturbable tenacity, but he never

read of the work of his predecessors and knew nothing about it, and while he probably did the same work more thoroughly and better than they, some of his deductions had been made previously. However, he did enough original research and found out many essential points which had not been unearthed previously to establish his fame as one of the great neurologists of all time.

Jean Martin Charcot (1825-93) was different from Duchenne in almost every respect, mental and physical. He fulfilled more completely the popular conception of a genius. Charcot was most decidedly a genius, and exhibited the traits of this class unmistakably. Leon Daudet, a close friend of Charcot, called him the Napoleon of the medical profession of his day. Daudet's memoirs, which have been translated into English, provide interesting reading. A commentary on the book was published in the *Lancet* August 18, 1945.

Daudet describes Charcot as resembling a stout Napoleon, who tyrannized over those about him and spoke to them in imperious and often ironical tones. There was no doubt concerning Charcot's genius as a clinical diagnostician, but his patients were to him little more than puppets who were the convenient objects of an intellectual exercise. He is described as "pitiless" toward human beings, but sentimental towards animals. Of course, he was a highly cultured, well read man who knew and discussed poets, painters and philosophers. He surveyed the common herd from the heights. At the Salpêtrière, he ruled with an iron hand and was intolerant of contradiction or criticism. Daudet, with perhaps the exaggeration of the vivid writer of fiction, describes how patients from the far corners of the earth were writhing about on curiously shaped prayer stools, or sitting with their atrophied limbs stretched on chairs decorated with gargoyles—waiting to receive their prescription for nux vomica or bromide from the master.

Charcot dealt with his patients in an extraordinary manner, sometimes with biting sarcasm, sometimes in a savage way, and on occasion was wilfully obscene, according to Daudet. He had a paranoid disposition. He was offhand and brusque to staff, students, distinguished visitors, and patients. His clinical demonstrations were stage productions, spiced with literary and artistic allusions. Daudet also said that Germans bored him, but that he showed a liking for English and Russian visitors. In 1890, Charcot was at the height of his fame and it was during a Christmas Eve party, that he was seized with acute precordial pain. Daudet was present and ran across the road to fetch Professor Potain, who came at once and after spending fifteen minutes alone with his distinguished patient, reassured him and his family that the trouble was of gastric origin. However, he told Daudet who walked back with him, that Charcot himself thought it was "angina pec-

toris", adding, "he was not wrong". "How long will it be before the end?", Daudet asked. "Two years, two years and a half at the most". Potain's prognosis was correct.

It should be borne in mind that Charcot was not only a great neurologist, but early made his mark in his lessons on senile and chronic diseases, diseases of the liver, the biliary passages and the kidneys. His name will live as that of a very great neurologist. Charcot was also a talented artist and one of the creators of the study of medical history in the graphic and plastic arts. In his *Inconographie photographique de la Salpêtrière* many valuable studies were published by himself and by his pupils, Henri Meige, Richer and others.

Possibly, Charcot may be described as a somewhat sophisticated genius, while Duchenne was of the unsophisticated plodding type. Both were touched with the divine spark. Perhaps, Duchenne fulfilled Carlyle's definition of genius, "An infinite capacity for taking pains" and Charcot the more popular view of genius, that is, its intuitive nature. These two Frenchmen, Charcot and Duchenne, placed neurology on a firmer basis and made important advances in this field of medical science.

Migraine

This is a more or less common malady of which the main, indeed the only, essential characteristic is recurring, sometimes periodical headaches of great intensity. These, as a rule, commence on waking in the morning, and may be unilateral, frontal, occipital, or general. Usually, such attacks commence during childhood but sometimes begin in later life. These headaches are accompanied often by severe vomiting, and are termed, "bilious attacks" with which is associated a great deal of vestibular disturbance, as in seasickness, and generally with somewhat peculiar eccentricities of vision. More rare symptoms of the malady are peculiar, slow sensory auras, which are said to be present or observed in no other disease, attacks of hemiplegia or monoplegia, or aphasia and ophthalmoplegia. Some of these attacks may accompany the headaches but others may occur quite distinct from the headaches and in consequence may be difficult to diagnose.

The etiology is not clear, in fact, it is extremely difficult, impossible it may be said, to trace its cause or source. Its course, too, is peculiar. In the usual way it tends to lessen after middle life and, in almost all cases, disappears in old age. Its sufferers also are of the hardy, long-lived type and almost always are active, intelligent and capable. It seems that heredity plays a part. The nature of the malady remains to be solved. There are several theories, none of which has been established. One feature of the disease which cannot be explained, is the ophthalmoplegia which may accompany very severe attacks, and perhaps, undue

prominence has been given to the importance of errors of refraction as causes of migraine. The late James Collier, an authority on epilepsy and migraine, pointed out that the majority of the subjects of migraine have no such errors of refraction, nor has the correction of such errors ever cured migraine.

Most cases can be benefited greatly by judicious treatment. Migraine or "petit mal" was thought to be a mild form of epilepsy, but the general opinion is against this view. However, luminal in one grain doses every night is said to be valuable. In long lasting attacks the object is to induce sleep and to keep the patient as well nourished as possible. The personal equation must be considered and treatment given in accordance with this principle.

News Items

The Harvey Lectures.—The sixth in the current series of lectures presented by the Harvey Society at the New York Academy of Medicine was delivered Thursday evening, March 21st, by Dr. D. W. Woolley, associate of the Rockefeller Institute for Medical Research. His subject was "Biological antagonisms between metabolically important compounds and their analogues".

Beth Israel Founders Seat in New York University Alumni Hall.—A gift of \$1,000 has been presented to New York University College of Medicine from the board of trustees of Beth Israel Hospital, to establish in the name of their hospital a founders seat in Alumni Hall, the auditorium of the proposed New York University-Bellevue Medical Center.

American College of Physicians.—The annual meeting of this organization will be held in Philadelphia, May 13-17th, inclusive, under the presidency of Dr. Ernest E. Irons, Chicago, Ill. Dr. George Morris Piersol, Philadelphia, Pa., is general chairman of the College and headquarters for the meeting will be at the Philadelphia Municipal Auditorium.

Menas S. Gregory Memorial Lecture.—Brigadier General William C. Menninger, director of the Neuropsychiatric Division of the Office of the Surgeon General, will deliver the second annual Menas S. Gregory Memorial Lecture at the New York University College of Medicine on Friday afternoon, April 26th, in the amphitheater of the Psychiatric Division of Bellevue Hospital. The subject of the lecture will be "Lessons from military psychiatry for civilian psychiatry".

Commission To Study Prosthetic Progress in Europe.—A commission on prosthetic devices, comprised of five Army and civilian experts, has gone to Europe to make a study of techniques in amputation surgery, developments in the field of prosthetics and artificial limbs, and the rehabilitation and reconditioning of amputees. The commission, which is making the trip at the direction of the Secretary of War, plans to visit scientific centers in England, France, Switzerland, Germany, Sweden, and possibly Russia. Colonel Leonard T. Peterson, chief of the Orthopedics Branch, Surgeon General's Office, heads the unit.

Ether Centenary.—Plans are now being made for celebrating in October the one hundredth anniversary of William T. G. Morton's demonstration of the use of ether in anesthesia, according to the *J.A.M.A.* Tentative plans include a number of symposiums during October 14-16, and a commemorative dinner on the evening of October 14th.

Hugh Cabot Memorial Fund.—It is reported in the *J.A.M.A.* that a campaign will be launched by the Hugh Cabot Memorial Fund to collect two million dollars to erect a penicillin research laboratory and plant in Russia. Harlow Shapley, Sc.D., chairman of the National Committee of the Fund, made the announcement. Dr. Cabot died in October 1945.

New Air Service to Mayo Clinic.—In order to facilitate the increasing demand for air service to the Mayo Clinic at Rochester, Minn., Northwest Airlines has inaugurated a new direct flight from New York to Detroit. A daily departure from LaGuardia Field, New York at 3 p.m. will arrive at Rochester at 10 p.m. with stops at Detroit and Milwaukee only. This new direct service is in addition to Northwest's present schedules from these cities as well as the frequent flights from Chicago and the West Coast to the home of the Mayo Clinic.

Norton Medical Award.—The book publishing firm of W. W. Norton & Company announce that they are again inviting manuscripts for submission to be considered for the Norton Medical Award of \$3500 offered to encourage the writing of books on medicine and the medical profession for the layman. The first such award was made last spring to *The Doctor's Job*, by Dr. Carl Binger. Announcement will be made shortly of the winning book for 1946. Closing date for submission of manuscripts this year is November 1, 1946. All particulars relating to requirements and terms of the award may be obtained by addressing W. W. Norton & Company Inc., 70 Fifth Avenue, New York 11, N.Y.

Greater New York Fund.—The report of the Fund for 1945 shows that gifts totalling \$4,810,518.29 were received in last year's campaign, as compared with \$4,661,943.64 in 1944. Pro rata and discretionary grants were made to each one of the 408 local, voluntary hospitals and health and welfare agencies participating in 1945. These agencies provide seven major types of services for the people of New York, as follows: Hospitals and related services, family care services, recreation and group work services, child care services, nursing and health services, general coordinating services and institutions for the aged. The 1946 campaign will be launched on April 29th and will continue through May.

Voorhees Scholarship Established at Princeton.—It was announced at the Alumni Day celebration at Princeton, on February 22nd, that Dr. Irving Wilson Voorhees, of New York, had established a scholarship at Princeton University in memory of his son, who, while a student at Princeton, left college to join the Army Air Forces. Irving Wilson Voorhees, Jr., a member of the class of 1941, received his "wings" at Maxwell Field, Montgomery, Ala., on October 31, 1941, and was immediately sent to Hawaii, arriving there a few days before Pearl Harbor. Lieutenant Voorhees, a fighter pilot, left an account of his experiences at Schofield Barracks, on the Island of Oahu.

After spending some months on Oahu, Lieut. Voorhees was sent to Australia, and from there went to New Guinea where he flew over twenty-five missions in the Buna-Kokoda area. On his final mission, November 30, 1942, he was shot down, and nothing further thereafter was ever seen or heard from him. The War Department made a futile search for three years, then declared him "officially dead." The income from the Voorhees scholarship will go to some lineal descendant of Dr. Voorhees' classmates (class of 1901) and later, "when the babies have grown up" to the lineal descendants of the class of 1941. Lieutenant Voorhees was awarded the Air Medal and the Silver Star for "gallantry in action". He was a Fellow of the Sons of the Revolution.

New York Cardiological Society.—At a regular meeting of this society held at the New York Academy of Medicine, on March 27th, Dr. Samuel Blinder presented a report for the Committee on Scientific Progress on the "Progress of electrocardiography during 1945". Dr. Theodore Joscelyn Curphey, medical examiner for Nassau County, New York, read a paper on "Sudden death in cardiac conditions" which was discussed by Dr. Harrison S. Martland. "Physiological aspects of coronary occlusion" was the title of a paper by Dr. Carl J. Wiggers, professor of physiology, Western Reserve School of Medicine, Cleveland, which was discussed by Dr. L. W. Gorham and Benjamin Zweifach, Ph.D.

Graduate Fortnight at the Academy of Medicine.—The nineteenth graduate fortnight of the New York Academy of Medicine will be held October 7 to 18, 1946, on the subject of tumors. The program will include evening lectures, morning panel discussions, scientific exhibits and demonstrations at the Academy; and afternoon hospital clinics at leading hospitals of New York City. All Fellows of Academy of Medicine will receive, without request, program and card of admission. Complete programs will be mailed to other physicians upon request.

Physicians, who are not Fellows of the Academy, may secure registration by sending name and address, accompanied by check for five dollars, to the Secretary of the Graduate Fortnight Committee, 2 East 103 Street, New York 29, New York.

Medical Officers of the Army, Navy and United States Public Health Service, on active duty, will be admitted to all sessions without registration fee.

New York University College of Medicine Commencement.—One hundred and thirty-one students of New York University College of Medicine received Doctor of Medicine degrees at commencement day exercises, held on March 28th. This was the fifth class to graduate under the accelerated program initiated in 1942 to train physicians for the armed forces, and the last special commencement of the College of Medicine, as lower classes are now being deaccelerated. Among the twenty-two civilian students in the graduating class were five women. Ninety students were graduated as first lieutenants in the Army Medical Corps, and nineteen as members of the Naval Reserve. Dr. John H. Mulholland, professor of clinical surgery, delivered the commencement address and the degrees were conferred by Dr. Harry Woodburn Chase, chancellor. Announcement of prizes and honors were made by Dr. Samuel A. Brown, dean emeritus of the Col-

lege, and chairman of the University Council on Medicine and Dentistry. Captain John W. Wieler, commandant, presented to the Army students commissions in the Medical Corps, and Captain Timothy F. Wellings, U.S.N., made the presentation of the Navy Award. Dr. Currier McEwen, dean of the College of Medicine, presided.

International Spanish Speaking Association of Physicians.—The one hundred and fiftieth meeting of Chapter Magnum of the International Spanish Speaking Association of Physicians Etc., was held in New York on Wednesday, March 27th. At the executive session the election of eleven new members was announced. The scientific program consisted of a symposium on psychosomatic problems, as follows: gynecology, Dr. Emil Novak, Johns Hopkins University; gastroenterology, Dr. Gershberg, president of the association; neurology, Dr. S. P. Goodhart, Polyclinic Hospital; psychiatry, Dr. H. S. Riply, associate professor, Cornell University; pediatrics, Dr. M. I. Levine, associate professor, Cornell University; cardiology, Dr. H. Vesell, assistant professor, New York University Medical College; and psychoanalysis, Dr. N. W. Ackerman, lecturer, Columbia University. A résumé was presented by Nador Fodor, LL.D.

The Criminal and Psychiatry.—At the 616th regular meeting of the Society of Medical Jurisprudence, held at the New York Academy of Medicine, Monday, March 11th, the problem of the criminal and psychiatry was discussed by the Hon. Elbert T. Gallagher, Judge of the County Court and former District Attorney of Westchester County, and Dr. Robert Kemble, of the Department of Health of Westchester County, in charge of child psychiatry and community mental hygiene. Judge Gallagher's address dealt with the advisability of amending the law relative to the discharged convalescent person who has been committed to a State Psychiatric Hospital because he was adjudged either insane at the time of the commission of the crime, or lacking in mental capacity to intelligently consult with counsel at the time of the trial. Dr. Kemble, who had wide experience in the psychiatric field in the military service, discussed the problem from the psychiatrist's viewpoint. A general discussion followed.

Health Insurance Programs.—The major health insurance and hospitalization programs now in effect or proposed on local and national levels were discussed at a meeting held in New York on March 12th. The meeting was under the joint sponsorship of the Public Health Association of New York City and the Conference Group on Health Services of the Welfare Council of New York City. The plans described and the speakers who presented them are as follows: "Health Insurance Plan of Greater New York," by Dr. Dean Clark, medical director; "The Blue Cross Plan," by Louis H. Pink, president of the Associated Hospital Service of New York; "Group Health Cooperative," by Arthur H. Harlow, Jr., executive director; "A Program of Medical Care for Mothers and Children," by Dr. Leslie Falk, captain of the Army Medical Corps; and "The President's Program for Health Insurance as Proposed under the Wagner-Murray-Dingell bill," by Dr. Theodore Sanders, member of the executive committee of the Physicians' Forum. A general discussion followed.

Obstetrics and Gynecology Examinations.—

The American Board of Obstetrics and Gynecology, Inc., has announced that the general oral and pathology examinations (Part II) for all candidates will be conducted at Chicago, Ill., May 6-11, 1946, with the Palmer House as headquarters for the Board. Candidates for *reexamination* in Part II must make written application to the secretary's office not later than April 15th, and candidates in Military or Naval Service are requested to keep the secretary's office informed of any change in address. Deferment without time penalty under a waiver of our published regulations applying to civilian candidates, will be granted if a candidate in Service finds it impossible to proceed with the examinations of the Board. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, 6, Pa.

New York Eye and Ear Infirmary to Join New York University-Bellevue Medical Center.—The Board of Directors of the New York Eye and Ear Infirmary, oldest hospital of its kind in North America, has voted to join the New York University-Bellevue Medical Center project planned for the Bellevue area. New York University is now seeking \$15,000,000 for the project which will include enlarged quarters for its College of Medicine, a University Hospital, residence hall, and other facilities. The New York Eye and Ear Infirmary will retain its identity under the new arrangement, it is reported, but will occupy a section of the new University Hospital when completed. The Infirmary is now housed in a half-century-old brownstone building at Second Avenue and Thirteenth Street.

The New York Eye and Ear Infirmary was founded in 1820 and is the third oldest hospital of any kind in New York City. The founders were young physicians, Edward Delafield and John Kearny Rodgers.

Russian Relief.—Announcement is made by the board of directors of the American Society for Russian Relief, Inc., that the American people had contributed to the Society \$32,706,469.95 in cash and goods during 1945. It was the largest sum of relief assistance received by Russian Relief in one year, making a total of almost \$80,000,000 received by the agency since its inception in September, 1941. Clothing, shoes, blankets and textiles made up 82.4 percent of all goods shipped during 1945, with medical, surgical and chemical supplies the next largest category at 9.2 percent; food and seeds, 4.4 percent; household utility kits, 3.4 percent and other miscellaneous items, 0.6 percent. All supplies were sent duty-free, with the Soviet government assuming all costs of ocean freight. The people of Costa Rica, Panama, Brazil, Venezuela and Mexico joined in last year's effort by contributing \$231,220.62 in cash and goods, the Board of Directors reported. Additionally, through the facilities of Russian Relief, goods valued at \$276,911.68 were shipped to Poland on behalf of American-Polish organizations, and supplies valued at \$126,899.50 were processed and shipped to Czechoslovakia on behalf of American Relief for Czechoslovakia, Inc. Russian Relief has undertaken a 1946 quota of \$25,000,000 worth of relief supplies to be shipped during the current year. Emphasis is being placed on medical supplies to re-equip hospitals and other institutions.

Medals Awarded For Work in Preventive Medicine.—The Army's preventive medicine program, which made the nation the healthiest Army in history, received recognition when Medals of Merit were presented to three eminent scientists by the Surgeon General of the Army. These men are: Dr. Francis Gilman Blake, president of the Army Epidemiological Board; Dr. Alfred Newton Richards, chairman of the Committee on Medical Research, Office of Scientific Research and Development; and Dr. Lewis H. Weed, chairman of the Division of Medical Sciences, National Research Council. Dr. Blake is dean of the Yale University School of Medicine and Sterling professor of medicine; Dr. Richards is vice-president in charge of medical affairs and professor of pharmacology at the University of Pennsylvania; and Dr. Weed is director and professor of anatomy, Johns Hopkins Medical School.

Personal.—Dr. Reinhold Rudenberg, Gordon McKay professor of electrical engineering at Harvard University Graduate School and consultant to the Farrand Optical Company of New York, has received the Stevens Honor Award for notable achievement in the field of "electron optics". He is the inventor of the electron microscope. The award was made at the seventy-sixth anniversary annual dinner of the Alumni of Stevens Institute of Technology.

Dr. Harrison S. Collisi, who retired from the U.S. Army with the rank of Colonel in December 1945, has been named medical director of the Planned Parenthood Federation of America, Inc., succeeding the late Dr. Claude C. Pierce, former assistant Surgeon-General in the United States Public Health Service.

Colonel Currier McEwen, after more than two and a half years of military service, has resumed his duties as dean of the New York University College of Medicine. He was granted leave of absence by the University for military service, entered active military duty May 6, 1943, and returned with the Bronze Star and the Legion of Merit. Although now discharged from active duty status, he remains in the Medical Corps Reserve with his wartime rank.

Dr. H. M. Weaver, senior administrative assistant and assistant professor of anatomy, Wayne University College of Medicine, Detroit, Mich., has been named assistant to the medical director of the National Foundation for Infantile Paralysis. Dr. Weaver's work will be with the Foundation's research program and fellowship training program for physicians and research workers. Under grants provided by the Foundation, research programs are being carried on in medical organizations throughout the country in an effort to find means of prevention or cure of polio. The professional training program includes fellowships in orthopedic surgery, pediatrics, virology and other fields concerned with poliomyelitis.

Dr. Simon B. Wolbach, Shattuck professor of pathological anatomy, Harvard University Medical School, Baltimore, delivered the twenty-second Ludwig Hektoen Lecture of the Frank Billings Foundation, Chicago, on March 22nd. His subject was "Vitamin A Deficiency and Excess in Relation to Skeletal Growth."

Dr. Walter M. Pamphilon, assistant director of the Willard State Hospital, has been appointed assistant commissioner of the New York State Department of Mental Hygiene.

THE ART OF MEDICINE

CARLTON C. CURTISS, M.D.

Syracuse, N.Y.

I have always felt that the best training a young physician could have after finishing his formal education which, of course, should include an internship, would be a few years' practice with an older man who would act as preceptor, guide and friend. Under such tutelage he would tend to round out his scientific knowledge with an appreciation of the art of practice. It could be only a beginning, but under wise guidance and advice the young doctor would be spared many of the embarrassing and disconcerting complications and situations that all of us have been prone to fall into during the first years of dealing with the public. But, however attractive such a plan might be, and while it has much to recommend it, I am afraid it is out of the question.

The medical course is already too long and with fellowships following internships every young man wants to get out on his own as soon as possible. Still, something may be accomplished if I share some of my ideas and experiences hoping that they may be of some small service to those young physicians who are beginning practice and of even more interest as the years pass. More so, because I have found that experiences have a way of repeating themselves and I am sure much that is written here will be the experience of others with some variation. Human nature does not change and the way people react to life is surprisingly fixed.

In developing any art, whether it is medicine or one of the so-called fine arts, a beginning has to be made with the acquirement of factual knowledge. The premedical course and the preclinical years are rightly devoted to this task, although I have a feeling that too much time is spent preclinically that would prove of more value spent in perfecting techniques after the doctorate has been won. However, if one is to think at least a vocabulary must be acquired which in medicine is a very special one. Also a multitude of data must be stored in the mind, tools and material with which to work. As I remember this period I always felt that there was too much minutiae. More was given than could be retained and time wasted that could well have been spent on something of more practical importance, and that drilled until impossible to forget. I never to this day have had any use for knowing twenty points of interest on the petrous portion of the temporal bone. Perhaps a nose and throat man might have use for such knowledge. That is just the point I want to make. When a student specializes that is the time to learn the twenty points of interest whether it is on the temporal bone or the prostate. It has a place in special training but much nonsense is taught in the preclinical years.

It was during my senior year in medicine, I think, that I suddenly realized that while I had some factual data, at the best it was scanty, poorly integrated, and wholly unleavened by experience. It was this quality of experience that enabled my clinical teachers easily to make diagnoses that seemed magical to me. These diagnostic experiences were my first introduction to the art of medicine and gave me an inkling that there

was an art to something that up to that time had always been factually cold and very scientific. One thing I noticed that while my clinical teachers exemplified the art they did it unconsciously because they never talked much about it, only a hint now and then, never elaborated, and I am afraid often confused in my mind with a pleasing personality or that indefinite something called a "good bedside manner".

As the years sped by and memory for much of the minutiae receding with them, I found my mind less and less encumbered with irrelevant facts. Not only did I find that I had forgotten much, but, I had it impressed on me by experience that much that I had learned in school was not so. This was disconcerting and, I must admit, annoying. My annoyance in a large measure had to do with myself. I felt that I was a better physician than twenty years previously but the element of doubt having obtruded itself made me uncomfortable. At this point in taking inventory I realized that, while certain facts little used had receded into oblivion, still a great mass of material had become so organized and digested that it had become so much a part of my thinking that I had difficulty at times in retracing in orderly sequence the steps leading to an opinion or diagnosis. Continuing my analysis it struck me that in service to my patients these unconsciously acquired intangibles seemed to be more valuable than the tangibles that I had apparently lost. I say apparently because, at that, I may yet subconsciously be using some of them.

What was this intangible something that I had acquired? For want of a better term let us call it the art of medicine. Whatever else it might be it was very personal. It was the product of living, making mistakes, being alternately misjudged and praised, sometimes being rubbed raw and at other times being left in a glow by appreciation when least expected. In other words, it was the product of the discipline of practice gained in the rough and tumble of everyday living, meeting emergencies and personalities, giving and taking, being damned and praised when neither was expected or deserved. It was not a product of the school room or some cloistered research laboratory. It was getting out in rain and snow, leaving bed and meals often for some trivia and again called too late because some misguided simpleton thought it was just a little bunch in the breast or another nitwit took salts for just a little belly ache. Being so personal and so much a part of the individual physician's experience and mistakes perhaps accounts for the reticence surrounding it. No one wants to be accused of egotism or even egoism, so art is neglected and much is made of scientific nonsense.

Seriously, though, what is the art of medicine? I think we can safely say that art in medicine is no different from any other art. It is skill, knack or ability based on study and observation and made perfect by experience and practice. That is why doctors never get over practicing and really go to work. As practice makes perfect, so a doctor learns by doctoring. In

either case work well done tends to be artistic. There is a facility, an ease to art. Art has no use for a bungling amateur. Art presumes a dexterity both mental and manual, qualities long recognized as a natural outgrowth of experience and training. In fact, it is only by practice that we achieve skill and dexterity. By its very name the practice of medicine presupposes the ultimate acquirement of these qualities which are the characteristics of art.

Emotion an Important Element

There is also another element in art and it is probably the most important. That element is emotion. Emotion as a quality of art is hard to define but feeling, sentiment, passion are all attributes of various degrees and depths of emotion. It might be said that artistic emotion is that something an artist wishes to convey through his work to another. In the fine arts, as painting and sculpturing, this is easily understood. The artist puts something into his work and we get an emotional reaction depending upon our ability to appreciate. Examples also come to mind in poetry and literature. In music the case is somewhat different. Often our appreciation here is not merely passive; it becomes active. A musician must not only appreciate the emotion or feeling of a composition, but in rendering it he must recreate the emotional idea so that it is, in turn, appreciated by his audience. This element of recreating emotion is the height of artistry.

In his work a physician is continually trying to do just that, to interpret the emotional qualities of his patient, the manners, changes, and variations in the personalities that he daily meets in practice. Having gained an insight he then in turn tries to recreate a new and more healthful emotional approach to life.

Unfortunately we deal not so much with the happy emotions, the polkas and the two-steps of life, but more often with the more somber emotions, the dirges, as it were. It is the emotion of fear, anxiety, or frustration that we learn to detect underlying a long history of physical aches and pains. It is the woes of the body patients talk about, neglecting the woes of the spirit they often are ashamed to admit. Our art must penetrate the mask and overcome resistance. Rapport must be established if help is to be given and received. Here our art often fails. We are willing, even anxious to give, but our best efforts are balked by patient resistance.

Complementing the mental there is a manual dexterity to all art. Any great musician exemplifies it but no more so than the manual dexterity of an operation well done. We all cannot be a Paderewski or a Mayo, but still certain mechanical skills must be perfected and not left to others. The making of a good examination or taking a blood sample are all associated with manual dexterity and many times are never mastered.

There is also an art in history taking. It is decidedly a knack and often it is just as important to know what to leave out as what to put in. A history can become so involved as to be useless. The way the patient gives the history, whether loquacious, the long list of symptoms written down, whether he comes to the point or wanders, his attitude while in the office, indeed the way he comes in, all have a meaning to the knowing physician. Experience here is a teacher and mistakes made in the past have often taught the most.

There is also an art in handling patients. They all cannot be approached in the same way. With some firmness, others have to be cajoled, coaxed or wheedled into good health. However, it has been my experience never to bully or frighten a patient into a course of action. If such a procedure seems necessary it is better to withdraw or do what you can, making it clearly understood that under the circumstances yours is not the responsibility because your advice is not being followed. It is often best in many situations to say too little rather than too much. Many mistakes are made by the tongue. Here again it is the mistakes of the past that teach us to guard our tongue in the present.

I am sure there are other phases to art in medicine that suggest themselves. There is an infinite variety in art. That is as it should be, because there is an infinite variety in personalities and the impact personalities make on life. I like to think of medical art as a plant rooted in science which, if cultivated with skill and dexterity, will flower as intuition, insight, and understanding resulting in lasting benefit not only to ourselves but, what is of more importance, to our patients.

738 WESTCOTT STREET

DOCTORS' LETTERS

SOLOMON R. KAGAN, M.D.

Roxbury, Mass.

There is a Talmudic dictum that both the scientific work and ordinary conversation of doctors merits study. The same is true in regard to their nonscientific treatises, including correspondence. It is a fact that letters written by great men attract attention, and are preserved by libraries and collectors or appear in print in connection with their biographies or separately in journals or books.

The value of letters written by men of science and art may be mainly evaluated from a literary, historical or biographical point of view. Some of them are masterpieces because of the brilliant style, significant content and literary accomplishment. Among the authors of such letters were S. Weir Mitchell, Sir William Osler, Sir Thomas Clifford Allbutt, Harvey Cushing and Fielding H. Garrison. Other letters lack literary composition and sense of humor, nevertheless they are distinguished by their clarity, brevity and simplicity, and, in many instances, with a scientific hint. There are other interesting aspects in the correspondence of many doctors. They contain discussions on scientific topics, original notes on science, art and general literature, and finally serve as a reliable source for biography, presenting the personality of the author. As a rule, the correspondent doesn't expect his letters to appear in print, therefore he expresses himself in them freely and naturally, and like a mirror reflects his characteristics.

I had in my possession over six thousand letters written by eminent physicians here and abroad on a variety of subjects. Most of them are addressed to me in connection with my work on medical history and biography. A great number of them I donated to the Army Medical Library, Washington, D.C.; to the Boston Medical Library; to the Library of Congress,

Washington, D.C.; to the Hebrew Teachers College, Roxbury, Mass.; to the Jewish National Library at the Hebrew University in Jerusalem; and to other libraries and museums.

The following selected letters are presented here for the first time. These remarkable letters are characteristic of the men, and are of interest to both physicians and laymen.

From Dr. Charles Singer to Dr. Fielding H. Garrison

Berkeley, California
December 9, 1932

My dear Garrison:

I have long owed you a letter and thanks for your papers on Fontenelle and the *First Medicohistorical Periodical*, both of which I have read with great interest.

I have just got off my *Short History of Science*, and am rather hoping I shall get my first galleys at Ceylon. I enclose our itinerary.

You ask why I "do not regard Harvey as a great thinker in physiology". I do, though I get a little tired of the Harveian narrations which ascribe to him all kinds of qualities that he did not possess. It seems to me that Harvey was essentially a specialist in the modern sense. He was a great physiologist, but he was certainly not a great thinker. If you saw his notes on his work "On the generation of animals" in the copy possessed by Pybus, I think you would agree with me. The charges against Harvey—which by no means affect his position as a physiologist are:

(a) He was an obstinate Aristotelian, although he had an opportunity to listen to Galileo and although his own work was based on Galileo. In this respect he was a distinctly backward thinker.

(b) Not only was he an obstinate Aristotelian, but he did not even reach the stage of thinking or take the trouble to obtain the true text of Aristotle. The texts that he read of Aristotle were medieval and, in some cases at least, spurious. Thus he had not even been reached by the Renaissance literary criticism.

(c) As is well known, he missed the Copernican theory, which was a bad howler for a man who had been brought up at Padua.

There is no reason why a great physiologist's views on philosophy should be of any particular value. Harvey's views on philosophy were not of any particular value. What I resent is the suggestion that they were. He was supreme as a physiologist. Why make him into a thinker?

Concerning Bichat, my adverse judgment of him is inherited from W. M. Bayliss, who took the trouble to go through his endless works and found very little in them. I feel that the real history of Bichat is that he must have been an exceedingly interesting personality, but that he died before his achievement became considerable. His books seem to me to be very wearisome and ill put together. The fact that his life was a tragedy does not make him a great anatomist. Bayliss felt he might have lived to become one, but that his works had been enormously overestimated. I do not claim to have gone through as Bayliss had.

We have really had a wonderful year. I go back with an increased respect for American education and am taking all my examination books with me to com-

pare with those of similar standing in England. The children are well and are travelling with us.

With very best regards from us both,

Yours ever, Charles Singer
* * *

Kilmarth Par, Cornwall
29 Jan. 1934

My dear Garrison:

Many thanks for your letter of January 4.

Yes, we are in a Celtic part all right and about thirty miles East of Land's End. It is rather *fun working out* the history of Kilmarth. We have traced back the present house to 1620 and there are remains of an earlier one which, I believe, was a manor attached to a local monastery. Quiller Couch is our near neighbour. Our nearest neighbour, however, is Menabill which is said to be the warmest garden in England. There the rhododendrons are already in flower and the snowdrops over.

So you too have come to the conclusion that travelling in winter is a mistake. I avoid it if I can.

I knew you were attached to Crookshank. It is all very sad. What little candles we are. So soon snuffed out.

Many thanks for the reprints and especially for the list of medical classics. I do admire the way that you are able to turn out works. I have lost all taste for writing articles and stick to books, which makes me seem idler than I am.

Do please let me have a copy of your omissions from your check list. I will get my copy bound and interleaved and put in your additions.

I am very distressed indeed about the European situation and am too unhappy to write about it. In essence it means, what I have long perceived, that Germany won the war. By winning I mean that she injured her opponents more than they injured her and emerges after twenty years *relatively* stronger than she was—and comparably madder. It all bodes ill for civilization.

Yours ever, Charles Singer.

From Dr. Harry M. Hurd to Dr. Fielding H. Garrison

The Johns Hopkins Hospital, Baltimore
May 22nd, 1916.

Dear Dr. Garrison:

Please excuse my employment of a stenographer. I am due down town in ten minutes and it will take about twenty if I walk. Many thanks for your kind words about "The Institutional Care of the Insane." I am glad you like it and I hope you will like it better the more thoroughly you look into the book. It is in many respects of course perfunctory, but at the same time it has required the writing of several thousand letters and much effort to collect the material. I enclose a circular which will give you an account of the contents of the remaining volumes. I am sorry to say, however, that the other volumes promise to be considerably larger than the present one.

I thank you very much for your kind suggestion that you are willing to review the book for one of the journals. If you have time to do so—and I wonder if you have—I should be glad to have such a review written. As to where it should go I leave that entirely with you. Probably the *Boston Medical and Surgical Journal*

would be a good place, or the *Journal of the American Medical Association*. But wherever you desire to send it will be entirely satisfactory to me.

With kind regards, very truly yours,

Harry M. Hurd.

* * *

Baltimore, May 8th, 1917.

Dear Dr. Garrison:

Your letter of the 3rd to Dr. Boggs has been shown to me. I am much gratified to know that we can have you on the night of May 14th to give your interesting paper before the Historical Club.

I write to ask whether it will be practicable for you to dine with me that evening before the meeting. The hour must needs be early, say half-past six, because the Historical Club will meet at eight-fifteen. If you can come I want to have a few friends to meet you, but I will not make any arrangements until I learn definitely from you.

With kind regards, sincerely yours,

Harry M. Hurd.

(To be continued)

Mice In Medicine

It has always been familiar knowledge with those who take an interest in the customs of old, medical and otherwise, that the meat of the mouse is one of the very oldest medicines known to man. It is not without interest to note that there is indisputable physical evidence of its continuous use as a drug for at least sixty centuries, reaching back beyond the commonly accepted date of the Creation. Moreover, its use is still common in some rural districts.

The widespread belief that this use was due to the supposition that undoubtedly prevailed that the mouse was a production of the Nile appearing after each inundation, cannot be said to be now prevalent, except perhaps among the modern Egyptians; but even so high an authority as Pliny says "the inundation of the Nile . . . surpasses all other marvels; for when it recedes, minute mice are to be discovered in a state in which the generative energy of water and of earth is incomplete, so that while part of their body is alive, the extremity is still a cast of earth" (1).

Pliny's *Natural History* (ix, 84) recommends mice cut open and topically applied for bites of serpents and for scorpion stings; the ashes of a mouse, its tail or the whole animal for alopecia; the head, gall and dung of mice with hellebore and pepper for ulceration of the head by cantharides; the ashes of a mouse for earache; rubbed on the teeth to sweeten the breath; mice, skinned, cooked in oil and salt and eaten, for suppuration of pus and loss of blood; mice cut open for gout, and their blood for warts (or the whole animal cut open); to extract thorns; for child's incontinence of urine, let him eat cooked mice, and there are scores more.

Diodorus Siculus (i, 10) has a similar statement: "This still actually takes place in Thebais, where at certain seasons, vast quantities of mice are spontaneously engendered . . . some of these animals are not completely formed except for their fore parts and front feet . . ." (2).

Nor was it alone the Pagan writers who expressed this belief of the miraculous generation of mice in the Nile—more than one Father of the Church and Early Christian had the same belief and gave expression to it.

Nor was this the only extraordinary thing in the mouse—it could conceive without sexual intercourse simply by licking salt. Aristotle, Pliny and Aelian all agreed in this.

All agree, too, in the medicinal effect of eating mice, and human remains have been found in Egypt believed to have been buried at least six thousand years ago, which contained the remains of mice in the alimentary canals of the remains of human beings which must have formed part of the last meal. (G. Elliot Smith: *The Ancient Egyptians*).

Down through the ages continued the administration of mouse meal as a medicine. Papyrus and Latinist agree—the first *written* record of a mouse as a child's medicine seems to be that in a papyrus at Berlin, at about 1500 B.C., which, speaking a child afflicted with "sesmi"—no one knows what that is—says, "Make this child or its mother, eat a cooked mouse. Put the bones upon his neck bound with a string in which seven knots have been tied." (Hearst: *Medical Papyrus*).

For centuries roasted mice were used all over the world which believed itself to be civilized, and in some parts as for example Algeria, still are administered to stop children dribbling at the mouth. I, myself, have heard this recommended in Upper Canada in the seventh decade of the nineteenth century.

In the twelfth century, Hildegard of Bingen used the mouse in epilepsy. A mouse was to be put into a pan of water, which the patient must then drink and bathe his face and feet in it.

Paracelsus in the sixteenth century, who proudly boasted his knowledge and skill as greater than those of Galen and Avicenna and "all your academies", gives the mouse as a great specific in phthisis.

Even in the seventeenth century the well known Nicholas Culpeper prescribes skinning, drying and powdering a mouse and administering for incontinence of urine and diabetes for three days together. The French chemist, Nicholas Lemery, in the late seventeenth and early eighteenth century considers it proper for incontinence of urine, being eaten. All down the ages to the present day the mouse has held its own. Dr. Warren R. Dawson in his interesting *The Bridle of Pegasus* (upon which I have freely drawn) (pp. 109 et seq.) tells us that in Gloucestershire a roasted mouse eaten by the patient is a cure for whooping-cough, and in Suffolk the ashes of a mouse baked alive are used for rheumatism, and fried mice for smallpox. (The fear is expressed that they have to be fried alive.) Other uses of the mouse are given, one of the most curious being the custom in parts of the Highlands of Scotland to thrust into a mouse hole a milk tooth cast by a child, otherwise the new tooth would not issue from the gum. The same practice prevailed in ancient Mexico, while in other parts of the globe, e.g., New Guinea and the Celebes, sometimes the mouse is invoked, "Mouse, I give you my tooth, give me yours instead."

The full story of the magical powers of the mouse would require volumes to tell and perhaps enough has been said to indicate its extent.

—THE HON. WILLIAM RENWICK RIDDELL.

Book Reviews

Ear, Nose and Throat Disease

Diseases of the Nose, Throat, and Ear. Edited by CHEVALIER JACKSON, M.D., honorary professor of bronchoesophagology, Temple University, Philadelphia, and CHEVALIER L. JACKSON, M.D., professor of bronchoesophagology. With the collaboration of sixty-four authorities. With 934 illustrations, including 18 plates in color. Philadelphia and London: W. B. Saunders Co., 1945. Pp. 844. Price \$10.00.

The name, Jackson, is to laryngology what Gray is to anatomy and Osler to medicine. It is fortunate that there are two Jacksons, father and son; for the work started and carried on by Jackson senior so many years ago falls now upon the strong young shoulders of Jackson, junior. This fact is stressed here particularly, because of the great talent of the elder man as expositor and teacher. Anyone who has witnessed *père* Jackson demonstrate with colored chalk knows what this means. Everything is made so simple and graphic that the spectator not only can but must learn *de profundis*. It is indeed a rare gift. Therefore, it follows that the illustrations in this book are models of excellent draftmanship. They stand out almost in *bas relief* from the printed page, and they are numerous enough to clarify every paragraph of the text which might need elucidation. Not quite so much can be said for the color plates which here and there take on a pinkish hue rather than the actual color of the mucous membrane. This may be due to the exigencies of war, the technical difficulty of reproducing exact shades, the quality of paper, etc.

This is not merely a ponderous reference book; it can be read seriatim by student, practitioner, clinical teacher and otorhinolaryngologist alike with interest and intellectual profit. Those who always seek "the newer" in medical literature will find articles on endoscopic photography, aviation otolaryngology, and chemotherapy in otolaryngology. However, procedures which have not stood the test of clinical experience are omitted. Each of the sixty-four contributors has done his best to condense his assignment into as few words as possible, to set down the facts, and the result is noteworthy. This is a new book and not merely a compilation of "reprints". It is the teacher, the entire faculty which has come from office, laboratory and bedside to instruct, to entertain, and to inspire.

Tropical Diseases

Stitt's Diagnosis, Prevention and Treatment of Tropical Diseases. By RICHARD P. STRONG, M.D., D.S.M., professor of tropical medicine, emeritus, Harvard University. With a foreword by Dr. E. R. STITT. Seventh edition. With 398 illustrations. Philadelphia: The Blakiston Co., 1945. Pp. 1747. Price \$12.00.

The first edition of this standard work was published in 1914, and since then a new edition has appeared every two or three years in order to "keep up" with this enormous subject. The war and the airplane have changed, not only the face of the world in shrinking both time and space, but have brought dangers once remote, in the Orient nearer to us in the Occident. There has been, and rightly, some apprehension lest we be unable to cope with these new terrifying and often insidious diseases about which we have known so little. Rear Admiral Stitt, Surgeon General (Ret.) of the U.S. Navy, has labored unceasingly at the Na-

tional Naval Medical Center and also at the Army Medical School to teach at least the rudiments of diagnosis so that recognition of such conditions as yaws and black water fever may be made promptly. Dr. Strong has been a close personal friend of Dr. Stitt for forty years and in editing this volume he has carried on the work which he began with Dr. Stitt in the early years of our occupation of the Philippines.

The common causes of tropical diseases are protozoa, bacteria, the filtrable viruses, poisonous plants and snakes (and other "lower orders" of animal life), nutritional disorders (avitaminosis) and fungi. This is not a complete list, but is sufficient to send a shudder of ignorance down most medical spines which are accustomed to the cozy armchair of the temperate zones. We have known malaria more or less intimately since the great discovery of 1898 and studies thereafter regarding the pestilential mosquito. Some of us boasted of "cures". In the light of experiences during World War II the word "cure" must be used with something more than mere caution. This is a deep-seated disease, capable of hiding within the body without obvious symptoms for years, and then suddenly re-appearing with dire results to health and life . . . Perhaps one cannot learn all about tropical diseases from books, not even from such a monumental volume as this one, but a sense of awareness or alertness may be thus established, and that is a long step ahead.

The Rorschach Test

The Clinical Application of the Rorschach Test. By RUTH BOCHNER, M.A., psychologist, formerly Bellevue Psychiatric Hospital, and FLORENCE HALPERN, M.A., psychologist, Bellevue Psychiatric Hospital, N. Y. Second edition, revised and enlarged. New York: Grune & Stratton, 1945. Pp. 331. Price \$4.00.

Personality is a complex entity and the outgrowth of many factors. These include the individual's constitutional endowment, his physical intellectual and emotional potentialities—his gifts and handicaps—as well as the positive and negative influences to which he is subjected. The interaction between these results is a complexity of patterns that renders each individual unique as he works out his methods of adjustment. Personality, then, may be defined as the product of the intelligence and the emotions, prefaced by constitutional factors and conditioned by environment. Any picture of personality taken out of the "stream of living" for purposes of analysis should reveal the structure basic to that living as well as the prevailing tone of the moment. To date, the projective technique has been the most successful instrument for obtaining such a portrait. The basic assumption of this method is that in any situation the individual by his behavior reveals himself, his habitual attitudes and his adjustive mechanisms. Thus the projective technique is a means of bringing the personality into the laboratory for purposes of quantitative and qualitative analysis.

The Rorschach test is one of the outstanding projective techniques and gives a dynamic picture of a functioning personality. It consists of ten standardized ink blots chosen empirically from a large number because they yield the best clinical picture of the subject. Since the blots are primarily without content, the subject must of necessity project himself into them in his interpretation. The blots are reproduced on cards

seven by nine inches in size. Five of the blot figures are black and gray, two are black and red, and three are multicolored; all are superimposed upon a white background.

The Rorschach test originally appeared in 1921 and today is one of the most important clinical instruments available to the psychologist and the psychiatrist. Rorschach's *Psychodiagnostik* provides the framework and inspiration from which all subsequent research and development of this technique have sprung. Mastery of Rorschach technique is more difficult than that of most personality tests. The results cannot be scored against a stencil, and any attempt to isolate a trait by numerical rating is alien to what is implicit in Rorschach's concept. This does not mean, however, as has so often been assumed, that the test is not standardized. The fact that the results of any record will yield the same basic personality picture to all qualified interpreters is sufficient evidence of its standardization. However, there is no question that subtler and finer nuances of interpretation are obtained in proportion to the richness of the examiner's psychologic background and Rorschach experience.

Any research in the field of personality is now considered incomplete unless it employs a projective technique. Of those available, the Rorschach is the one most frequently used. There is no doubt that the use of the Rorschach test enriches any study and contributes material not obtainable through the medium of other techniques. However, like any other test, this technique also has its limits, and must remain an instrument in the service of psychology and psychiatry. It should therefore not be exploited nor pushed beyond its scientific validity. It should always be remembered that Rorschach himself stated that the test will indicate "how the person experiences, but not how he lives, or toward what he is striving."

War Neuroses

War Neuroses. By ROY R. GRINKER, director of the Institute of Psychosomatic and Psychiatric Training in Research, Michael Reese Hospital, Chicago, and JOHN P. SPIEGEL, formerly of the department of psychiatry, Michael Reese Hospital, Chicago. Philadelphia and Toronto: The Blakiston Co., 1945. Pp. 145. Price \$2.75.

The Air Force has been a fertile source for the study of psychosomatic conditions during World War II. Whether in the air or on the ground, a man's life was always in danger because of surprise attacks. Therefore, the mental and bodily tension never let up night or day so long as an "alert" was expected. Only by fairly frequent rest periods away from "the front" could any degree of return to "normal living" be obtained. During combat, fear was at a minimum, strange to say, because the excitement, the maneuvering for advantageous position, the constant attention to the panel board, and the desire to "square up" with the enemy because of the loss of some dear friend in a previous engagement brought out the greatest effort possible. Among the ground crew, defenseless to the last man, there was always the fear of strafing by some enemy plane which had got through the defenses. There was also anxiety for pilots who were seemingly slow in returning or who came in late or not at all.

There have been several good books dealing with neuroses brought on by the awful experiences of this

second holocaust, but none is more practical and helpful than this human interest story. Moreover, the authors have not been content merely with diagnosis or abstract medical considerations; they tell us what to do to help the patient recover. After all, that is the essence of good medical writing.

Preventive Medicine

Preventive Medicine. By MARK F. BOYD, M.D., M.S., C.P.H., field staff member, International Health Division, Rockefeller Foundation. Seventh Edition, Revised. Illustrated. Philadelphia and London: W. B. Saunders Co., 1945. Pp. 591. Price \$5.50.

Preventive Medicine and public health are rapidly coming to the forefront of professional and lay attention. This is reflected in the rapid advances which have not been satisfactorily applied collectively or individually. Consequently, the author stresses those aspects that are immediately applicable to improve the well-being of the whole individual, envisaged psychosomatically. In a desire to cover the entire field there has been considerable condensation, but the facts are presented clearly and effectively from the viewpoint of invading organisms, nutrition, disease, puerperal states, heredity, sanitation and demography. The book is a veritable repository of invaluable facts applying to public health.

General Practice

Treatment in General Practice. By HARRY BECKMAN, M.D., professor of pharmacology, Marquette University, School of Medicine, Milwaukee, Wis. Fifth edition, reset. Illustrated. Philadelphia and London: W. B. Saunders Co., 1945. Pp. 1070. Price \$10.00.

This new evaluation of modern therapy embodies the medical experiences of warfare as well as those of civilian life. The great wealth of contributions has been woven into a composite tapestry bridging the old with the new in very readable literature. Indeed, they seem to be an outgrowth of procedures used in the past. The same terseness of expression and crispness of content characterizes the book throughout. It is invaluable as a book of reference in everyday practice for therapeutic orientation.

Plastic Surgery

General and Plastic Surgery. With Emphasis on War Injuries. By J. EASTMAN SHEEHAN, M.D., professor of plastic reparative surgery, New York Polyclinic Medical School and Hospital. Illustrated. New York and London: Paul B. Hoeber, Inc., 1945. Pp. 345. Price \$6.75.

Dr. Sheehan had a vast experience in World War I, especially in England where he worked with the renowned Mr. Gillies and others. After 1918, he returned to New York and has taught in various hospitals while carrying on private practice. In the beginning his efforts had to do with head and face defects; in World War II he has covered practically all fields. Spain and England have provided the "material" for the substance of this book, the fifth in a series which Dr. Sheehan has written concerning plastic surgery. The background of these studies is concerned with general medicine and general surgery as it should be; therefore we have data on "causes", on agencies of destruction and their effects upon the body as a whole, including underwater blasts. Other chapters deal with wound infection and its control, burns, wounds of the face, skull, brain, bony spine, spinal cord, abdomen,

pelvis and chest. Replacement of tissue and the healing of wounds are treated from the physiological viewpoint, and not merely as so much carpentry. The rôle of plasma and ascorbic acid in healing is described in aiding wound healing. The final chapter deals with standard operations for repair. One might wish to have a more comprehensive description and discourse upon the various prostheses where grafts and other such restorations are not possible, but there are volumes devoted to this phase exclusively, and the general excellence of this book calls for praise of what it contains, not blame for what had to be left out.

Jaw Fractures

Fractures of the Jaws. By ROBERT H. IVY, M.D., D.D.S., F.A.C.S., professor of plastic surgery, School of Medicine and Graduate School of Medicine, University of Pennsylvania, and LAWRENCE CURTIS, A.B., M.D., D.D.S., F.A.C.S., associate professor of plastic surgery. Third edition, thoroughly revised. Illustrated with 199 engravings. Philadelphia: Lea & Febiger, 1945. Pp. 174. Price \$4.50.

This compendium concerns an important type of fracture which used to be sadly neglected, and in which the end results were poor. Two factors present themselves: Fixation of the fragments so that firm primary union may take place, and prevention and cure of infection. There is a third consideration, namely, how to feed the patient and thus to keep his reparative powers at full capacity. This latter is well described in the final chapter (8) by Clyde W. Scogin, D.D.S. In general the diet should be relatively high in fats and proteins; low in carbohydrates. Variety is important; for these patients quickly tire even of a favorite food. The methods of feeding are detailed, and outlines for liquid or soft diet are set down.

Prevention of infection of bony fragments is well-nigh impossible because the fracture is practically always compound and the mouth furnishes a host of germs which invade the bone and surrounding soft tissues. However, many such suppurations clear up after surgical drainage, but a few go on to osteomyelitis with sequestrum formation. False union is not common even though convalescence be protracted. It is important to exclude syphilis and tuberculosis as delaying factors.

This book gives in small compass practically all that is known concerning the management of fractures of the jaws up to date.

Health Agencies

Voluntary Health Agencies. An Interpretive Study. By SELSKAR M. GUNN and PHILIP S. PLATT. With a foreword by LOUIS I. DUBLIN. Written under the auspices of the National Health Council. New York: The Ronald Press Co., 1945. Pp. 364. Price \$3.00.

When this study was undertaken, Mr. Gunn was a vice-president of the Rockefeller Foundation who had explored health matters for some thirty years. When war came, Mr. Gunn was "loaned" to former Governor Lehman and went with him to Europe. He was finally invalided home and died here August 1, 1944. Fortunately, much of the needed data was in hand, and Dr. Platt was able to complete the work and make it ready for publication.

It will surprise some of us to learn that there are "over twenty thousand voluntary health agencies in the U.S.!" From an impartial viewpoint this is both

good and bad. It is good to know that public health is so largely on the mind and conscience of so many; but it is not so good to find them (the agencies) overlapping, competitive and controversial. There are also jealousies between "official" and voluntary groups which militate against co-operation. National voluntary agencies are concerned with research and exploration and may well act *in loco parentis* to the smaller, local groups who have specific problems in need of solution. This study recommends a more searching self-analysis of merits and defects by local agencies, and a recognition of the big brother leadership of the official groups. Eventually, it seems that unification of all "plans" under the National Health Council, may become imperative to be effective to the last degree. The parallel is drawn between community chest efforts and the National War Fund which latter seems to have been thoroughly acceptable to the American people.

Obstetrical Pediatrics

The New-Born Infant. A Manual of Obstetrical Pediatrics. By EMERSON L. STONE, M.D., associate clinical professor of obstetrics and gynecology, School of Medicine, Yale University. Third edition, thoroughly revised. Philadelphia: Lea & Febiger, 1945. Pp. 314. Price \$3.25.

This booklet represents an amplification of a course of lectures given to senior obstetrical students to intensify their interest in the care of the newborn infant. Since most obstetricians tend to be interested almost entirely in the mother and to minimize problems presented by the infant, this presentation bridges the gap between obstetrician and pediatrician enabling them both to contribute their utmost to the well-being of the baby. There is an excellent resume of the manifold problems occurring in the newborn ranging from immediate care to aspects of disease. The book is practical, authoritative and helpful.

Psychotherapy

(Continued from page 228)

7. The future of psychotherapy runs parallel to the progress made in psychosomatic medicine. "It is our duty to apply to our patients all forms of treatment that we think will be helpful and in the treatment of the neuroses and psychoses especially, psychotherapy is likely for a long time to continue to occupy a dominant place." (L. Barker).

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A National Review of Medicine and Surgery, Established 1843

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PUBLISHED MONTHLY BY

THE MEDICAL JOURNAL AND RECORD PUB. CO., INC.

Office of Publication: 210 Orchard Street, East Rutherford, N. J.
Editorial and Executive Offices: 215 Fourth Avenue, New York 3, N. Y.

GREGORY STRAGNELL, M.D. ----- Editor

A. M. MARLATT ----- Assistant Editor

N. F. HANF ----- Business Manager

Subscription Price: Under Domestic Postage, \$4 Yearly; Under Foreign Postage, \$4.75 Yearly; Single Copies, 40 cents.

Remittance should be made by New York Exchange, post office, or express money order, payable to The Medical Journal and Record Publishing Company, Inc., or by registered mail, as the publishers are not responsible for money sent by unregistered mail. Remittances from Foreign Countries should be made with International Money Orders.

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APRIL 1946

Medicolegal Notes

Seaman's Maintenance and Cure Case

An action was commenced by a seaman by libel in admiralty in the Federal District Court for Eastern Pennsylvania, against the War Shipping Administration, seeking maintenance and cure. By stipulation of the parties, the trial of the case was by the District Court without a jury and the parties agreed on the facts of the case, which will appear hereunder. Only one question was presented, which was this:

Should maintenance and cure be allowed to a seaman who, at the time of his employment, failed to disclose a prior existing hernia and whose incapacitation during the voyage was due solely to the fact that he "forgot to bring his truss along"?

As found by the court, the facts may be briefly stated as follows: The libellant, an experienced seaman, joined the S.S. *Philip Livingston* on April 18, 1943, at Philadelphia as a utility messman at \$87.50 a month, plus maintenance and war bonus. He was paid off June 25, 1943, at Freemantle, Australia, for the purpose of securing medical or surgical care. The ship was at all times mentioned as owned by the Government and operated by the American Hawaiian Steamship Company under a general agency agreement with the War

Shipping Administration. He had sustained a rupture while working as a shipfitter's helper in the Navy Yard at Philadelphia, had been treated by a doctor and given a truss to wear. He forgot to take it with him when he joined the vessel. His rupture began to bother him on the voyage. He asked to see a doctor, and was paid off the vessel soon after.

The Federal District Court for Eastern Pennsylvania, *Burns vs. United States*, 62 F. Supp. 603, Sep. 28, 1945, denied the claim for maintenance and cure for the following reasons: It is a seaman's duty to disclose, at the time he is employed, whatever he, as an ordinary, prudent person, should have known was material to the ship owner's risk of liability for maintenance and cure. Failure to disclose, on joining the ship, his prior existing hernia, coupled with his forgetting to bring his truss, which forgetfulness was the sole cause of his incapacitation during the voyage, precluded him from recovering for maintenance and cure.

Negligence in Treatment With Diathermy Machine for Expert Determination Only

In an action for malpractice it was alleged that the plaintiff's foot was burned during treatment with a diathermy machine. The Illinois Appellate Court held, *Lucarelli vs. Winters*, 320 Ill. App. 359, 51 N.E. 2d 205, that whether the defendant's physician was negligent was a question which could be determined only by expert testimony, because it was not within the common knowledge of man. But conflicting evidence on the point was for the jury. A hypothetical question requiring the plaintiff's expert witness to assume that the plaintiff had nothing wrong with his foot until the treatment, was held not misleading although other evidence showed that plaintiff had complained of his foot before receiving the first treatment.

This case was cited in *Simon vs. Kaplan* (1944) 321 Ill. App. 203, 52 N.E. 2d 832, 835, to the proposition, which the court approved as a correct statement of the law, that "before a recovery can be had in a malpractice case, it must be shown by affirmative evidence that the physician was unskillful and negligent and that his want of skill caused plaintiff's injury".

The court in the *Simon* case added that it was also the law "that the liability of a physician for injuries caused by the misuse of an x ray machine rests upon the same principle of law as any other branch of medicine or surgery."

Time Limit for Notice of Accident

The New York Appellate Division affirmed an award under the Workmen's Compensation Law for twenty-one weeks total disability and seventeen and a half weeks partial disability, rejecting the contention of the employer and its insurance carrier that the claimant failed to give notice of injury as provided by section 18 of the Workmen's Compensation Law. The claimant was an employee in a restaurant. He was struck on the left shoulder by a swinging door. The failure to give notice was excused by the Compensation Board on the ground that the claimant did not realize the serious nature of the injuries at the time of the accident. As soon as she learned, she gave notice. It was held that the evidence sustained the Board's determination. *Moscowitz vs. Barclay*, 59 N.Y.S. 2d 352.

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Remaining Task of Army Doctors

The care of the war's wounded is only a part of the medical responsibility of the Army Medical Department, with five thousand neuropsychiatric patients, one thousand tropical disease patients, and three hundred blinded soldiers still in Army hospitals, said Surgeon General Kirk, at the annual dinner of the Society of Surgeons of New Jersey.

"In the nine centers specializing in hand and plastic surgery, there are 11,500 patients needing an estimated 31,000 operations," General Kirk pointed out. "The plastic surgeons who had been working twelve to fourteen hours daily, six days a week, to carry this load were most of them eligible for separation on points. It was necessary to freeze them in the service."

Wherever American soldiers are on duty anywhere in the world, there must be medical officers with them. While the flow of battle casualties has ended, young men are still subject to all the usual diseases, from colds in the head to acute appendicitis. They are still subject to accidents, must be protected against tropical disease, and from the diseases born of wartime devastation and malnutrition, and must be looked after at staging areas and on their way home. They still must be examined thoroughly at separation centers, and those who will replace them at home and overseas must still be examined at induction centers. Prisoners of war must still be cared for, and displaced persons are frequently medical problems before they are anything else."

"The hardship to be borne by men who must remain in uniform longer than they like," he concluded, "is indispensable to the completion of the job."

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In order to assure the interchangeability of medical equipment between the two services and to unify purchases of medical supplies, an Army-Navy Medical Procurement Agency has been set up, with headquarters at 52 Broadway, New York. The recommendation for joint medical procurement was approved by the Secretaries of War and the Navy, on October 9, 1945, and combined operations began December 15th.

Rear Admiral K. C. Melhorn, M.C., U.S.N., of Pine Hills, Calif., is director of the project, and Colonel M. E. Griffin, M.C., U.S.A., Washington, D.C., is officer in charge of the procurement office. The agency is staffed jointly with Army, Navy and civilian personnel. The buying policies under which the agency operates will be determined by a board of four officers, two from each service, and will be under supervision of the Army-Navy Munitions Board. A single laboratory has been set up for testing.

A supply list has been compiled of medical supplies used by both services, arranged so as to permit easier identification of supplies used by either service. Exchange of any surplus which may occur is facilitated and relief from temporary shortage of a specific material may be obtained by checking with the other service. As a result of standardization, about eighty-five percent of the three thousand items regularly stocked by the Army have been found susceptible to use by the Navy. In some cases Navy specifications will be changed to conform to the Army's and in others the Army's will conform to the Navy's. Certain items, such as operating room equipment for use on board ship, are peculiar to the Navy, while veterinary supplies are peculiar to the Army.



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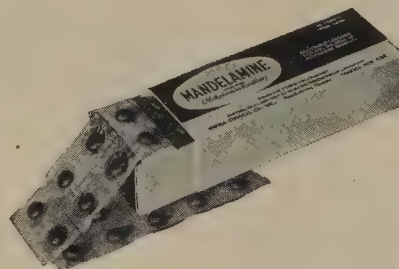
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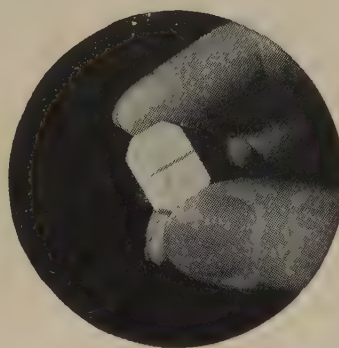
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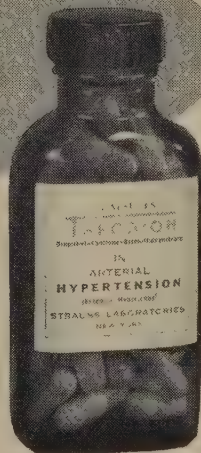
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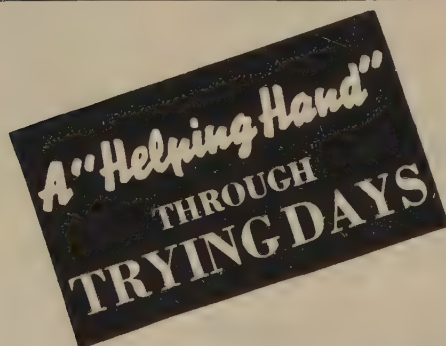
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Explaining the objectives of the plan, Henry P. Bristol, president of the company, said the management believed it to be "the most complete and liberal in all industry." In general, it provided a considerably greater degree of protection than was offered in the standard employee group contracts now in force in industry. In addition, the plan established a precedent in its provision for long term and permanent disability benefits. Employee dependents could be insured for the medical benefits at an extremely low cost.

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Permanent total disability: After ten years of service benefits start at twenty percent of regular compensation ranging upward to fifty percent of compensation for twenty-five years of service, payable up to retirement age of sixty-five.

Reimbursement for cost of medical care will be available to employees after three months service under the following schedule: For any one disability, semi-private hospital accommodations at a cost not to exceed \$420; hospital service charges, \$100; surgical attention, \$225; physician's care at \$5 per hospital or home visit and \$3 per office visit; laboratory and x ray examination, \$25; nursing services, \$300. Benefits for physicians' visits, laboratory and x ray examinations and nursing services are subject to a \$50 deduction.

Employee dependents are insurable under the medical benefits section at a monthly premium cost of \$3.50 for one dependent and \$5 per month for two or more.

Life insurance coverage for employees ranges from \$1,000 to \$15,000 or approximately equal to regular salary.

If the company discontinues either temporarily or permanently the services of a regular full time employee because of lack of work, he would be entitled to fifty percent of regular salary for periods ranging from four weeks for six months of service to fifty weeks for ten or more years of service, with minimum benefit \$20 per week and maximum \$100 per week, subject to adjustment for unemployment benefits under state unemployment insurance acts.

Because the plan is new with many parts of it without precedent the company, Mr. Bristol stated, reserved the right to change it or even abandon all or any part of it if necessary.

Pick's disease.—Erythromelia has been called Pick's disease after Filipp Joseph Pick (1834-1910), first full professor of dermatology in Austria. He was an early experimenter, proved by inoculation the identity of mouse and human favus, demonstrated the contagious nature of molluscum contagiosum, compelled the recognition of the tuberculous nature of lupus vulgaris, and independently described leptothrix.

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Association of Electroencephalographers

Twenty-seven prominent civilian and military electroencephalographers from several different states met at the Graduate Club of the Institute of Living in Hartford, Connecticut, on Friday, March 1, 1946, to organize the Eastern Association of Electroencephalographers. Formed for the purpose of promoting research in the field, the Association plans to pool scientific information concerning the neurophysiology and clinical application of electroencephalography. Lieutenant Commander Robert S. Schwab, M.C., U.S.N., of the United States Naval Hospital in Boston, was elected chairman of the association, and Dr. Charles W. Stephenson, of Hartford, recorder.

One of the immediate projects of the group is to approach the American Physiological Society, the American Neurological Society, the American Psychiatric Association, and the Council of Physical Medicine of the American Medical Association, on the matter of establishing a joint committee among the several organizations for the purpose of considering the desirability and means of establishing minimum standards for approved electroencephalographic laboratories. Members of the committee appointed to pursue this project are: Dr. Hallowell Davis, associate professor of physiology at Harvard, chairman; Dr. Paul A. Hoefer, associate professor of neurology at Columbia University, and Dr. Margaret Kennard, assistant professor of neuropsychiatry and neuroanatomy at New York University.

The newly formed association will meet bimonthly, with the seminar type of meeting preferred. The second meeting is scheduled to be held at the Grad-

uate Club of the Institute of Living on Friday afternoon, April 12, 1946, at which time a draft of the constitution and by-laws will be presented by the Organization and Program Committee. Also, military experiences in electroencephalography will be discussed by Dr. Milton H. Kibbe, who will speak of army experiences, and Dr. Charles B. Henry, who will report on navy data.

Fluoros-D

The National Drug Company of Philadelphia, manufacturers of pharmaceuticals, biologicals and biochemicals, has announced an important addition to their line of products—Fluoros-D (bone meal with vitamin D). It is in tablet form with each tablet containing: bone meal, seven and one half grains (containing fluorides 0.1 percent); vitamin D, four hundred units (synthetic); with flavoring agents.

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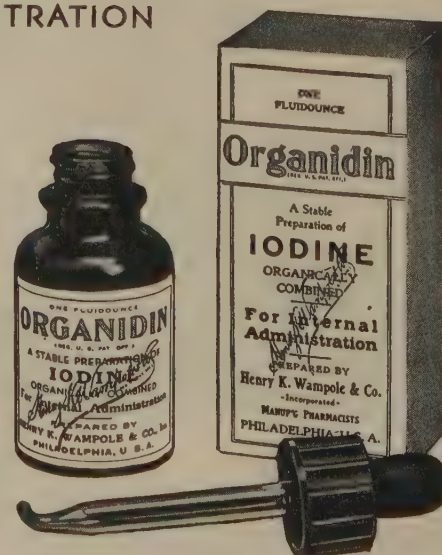
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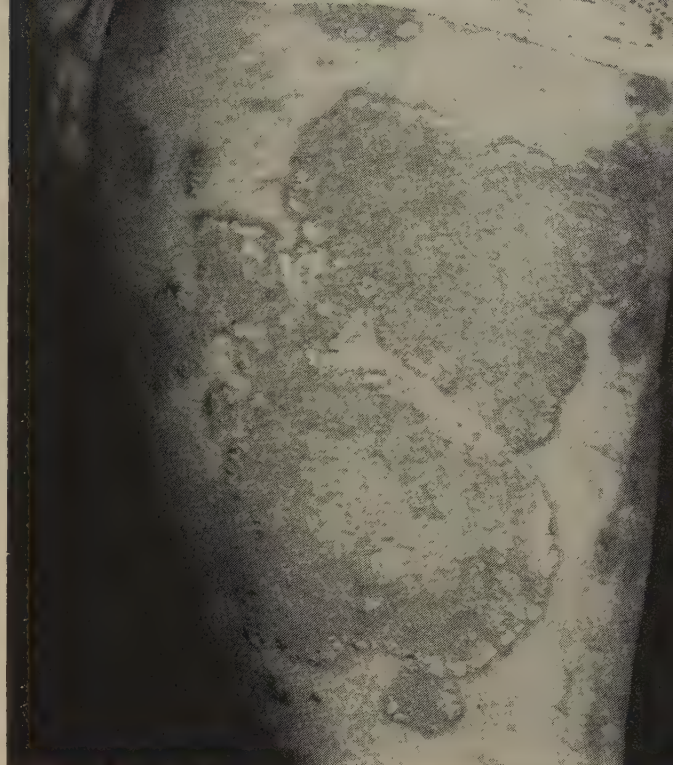
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Critique

**Aren't People
Funny?**

A Maori chief would not blow a fire with his mouth. If he did, his sacred breath would communicate its sanctity to the fire which would pass it on to the pot, which would pass it on to the meat in the pot, which would pass it on to the man who ate the meat in the pot on the fire upon which the chief blew his breath. Then things would be in a mess because the eater, infected by all that sacred breath, would surely die. Sanctity and malign influences were very similar from the savage viewpoint. He did not know which operated in the case of a menstruating woman, but he was afraid of it anyway, and that was that.

Hair cutting could be quite a trial among some savages. When the chief of the Namosi in Fiji was about to have his hair cut he always ate a man first as a precautionary measure. A particular clan provided the victim, sitting in solemn council to choose him. The subsequent feast was a sacrificial affair, especially for the roast meat, and was intended to avert evil from the chief. Many spells also had to be uttered while the old boy was getting his hair cut. The person who did the cutting went under a tabu for awhile to sweeten him up and had to behave in specified ways. If the chief had had his gallbladder removed no telling what would have happened.

In Cyprus, in ancient times, each woman had to prostitute herself to strangers in the sanctuary of the goddess Aphrodite or Astarte, right before marriage. At Babylon every woman, rich or poor, had once in her life to submit to the embraces of a stranger in the temple of Mylitta and to dedicate to the goddess whatever she earned in this sanctified act. The sanctuary was often crowded with women waiting for a man to show up. Women also prostituted themselves in Phoenician temples in order to propitiate a goddess.

**Morality of
Native Africans**

Torday wrote on this subject in the *International Journal of Ethics* for January 1929. He said the natives believed in no great God but rather in spirits. The native felt that his spirit could return to his ancestors so long as he lived at home, but when he moved his spirit could not find its way back. Exported from home he lost both religion and hope. An Ashanti chief who exploited his people or seduced a subject's wife was deposed; an autocratic Yoruba chief was given a basket of parrot's eggs and told he was tired and needed a rest, whereupon he killed himself. In many tribes old, decrepit chiefs gave over their power voluntarily and were politely killed by their relatives. Feminine influence was potent to restrain a chief from violent actions, usually a wife or sister—sometimes a queen. The Uganda, Lunda, Kongo, and Bushongo blacks all had elaborate constitutions. The last-named had had a parliament for three hundred years, chosen by popular will and representing each territory, craft, and trade, with women on equal footing with men and able always to veto war if they wished. But this powerful people had long been too proud to conquer anyway; it had no army—just a police force, and today it must look upon the fighting whites in Africa as barbarians indeed. Many tribes also fought only sham wars, the first blood

drawn settling the controversy. Chiefs assisted by tribesmen dealt out justice. The Boloki had a complex legal system which was very comprehensive and was based on traditional law taught all adolescent children. There was unquestioned collective tribal responsibility for all actions, hence each man, woman, and child felt the need of seeing custom enforced and crime avoided.

Bread: Whole wheat bread is superior to white bread as a source of parts of the vitamin B complex, protein, and minerals. It is not necessary to eat whole wheat bread to secure these food elements, however, if the diet is already sufficiently diversified. The addition of milk and fat builds white bread up nutritionally.

The mineral content of common grains such as wheat, oats, barley, and corn, shows surprisingly large variations when they are grown under diverse agricultural conditions. The calcium content of one wheat sample may be six times that of another. Wheat raised with sixty-seven and a half inches of irrigation water has been found to contain two and six tenths times as much calcium as wheat grown on the same soil without irrigation. Some wheat varieties contain twice as much calcium as others. There are similar variations in the potassium, magnesium, phosphorus, and iron content of grains. The nutritive value of vegetables and cereals as affected by the soil and agricultural practices is an important subject that has been too little investigated. The Agricultural Research Administration of the Department of Agriculture has a cooperative laboratory at Cornell where such matters are under study.

Certainly the bold, generalized claims made by advertisers and food faddists for the mineral content of foods of vegetable origin are so far frequently unjustified. So many factors elude control. The source and cultivation of the plants will make all possible difference.

Bran Fad

The bran fad was bumped in the *Northwestern Miller* of March 6, 1929, by Dr. Alonzo E. Taylor of the Food Research Institute. He said that only vitamin B was found to any considerable extent in wheat, though it is widely present in other foodstuffs comprising a diversified diet. Wheat bran can be used to replace roughage in fruits and vegetables, but it is not necessary. There is, however, a bran cult, partly created by advertising and partly by ignorant faddists who misinterpret or give wrong emphasis to sound scientific work.

"The most effective roughage is to be obtained in raw brans and in raw fruits and vegetables. In cooked or baked bran; fruits, or vegetables of the same fibre content, the bran is less effective. The more effective the roughage, the more likely it is to irritate the alimentary tract and provoke digestive disturbance. Among the different kinds of roughage, for most persons bran is likely to be found less acceptable than the fibers of fruit and vegetables; and in particular, among the numerous fruits and vegetables, each individual is likely to find that certain of them prove best adapted to his alimentary tract".

But there are many degrees of the bran cult, some bordering on religious mysticism. The cult continues to intrigue us.

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Hebrew Medical Journal

The second number for 1945 of the *Hebrew Medical Journal* (*Harofe Haivri*) was the eighteenth anniversary issue of this semiannual bilingual publication, edited by Dr. Moses Einhorn.

The contents of this issue cover a variety of related subjects, such as medicine in the Bible and the Talmud, old Hebrew medical manuscripts, Palestine and health, etc. There are articles on "The Treatment of Heart Failure" by Dr. Harry Gold, "The Anemias and Their Treatment in the Light of Recent Advances" by Dr. Gershon Ginzburg, and "The Child and His Mental Health" by Dr. Samuel J. Lipnitsky. There is also an interesting historical article by Professor Nahum Slushtz, of Palestine, on Isaac Ben A'mran, famous physician and philosopher, who lived in Keiruhan in the middle of the eighteenth century and served as court physician to Emir of Zaduth Alla. Dr. M. Ben-Ami writes on medicine in the Bible, and Dr. Z. Muntner discusses the social status of the physician in the Talmud.

Dr. Solomon R. Kagan presents an article of particular interest on the contribution of the pioneer physicians to the growth and development of the Zionist movement throughout the world. Since the Middle Ages the Jewish physician has exerted great influence on the communal life of Israel. The contribution of the Russian and Palestinian physicians to the Zionist cause is also discussed.

The contents of *Harofe Haivri* are available to every reader, for there are complete English summaries of all the original articles.

Vocational Rehabilitation a Public Responsibility

The problem of human rehabilitation was discussed at a meeting held on January 31st, which had been arranged by the Conference Group on Employment and Vocational Guidance of the Welfare Council of New York City. Dr. Jack Masur, former chief medical officer of the U.S. Office of Vocational Rehabilitation, was the first speaker.

Vocational rehabilitation, he said, had now become a public responsibility and should be regarded in the same sense as public education, public assistance, public health and public welfare. Vocational rehabilitation for the handicapped person had become a legal as well as a fundamental right. Among the groups of the handicapped for which aid should be provided were the hard of hearing and the deaf, the cardiac, the tuberculous, the diabetic, the asthmatic, the epileptic, the psychiatric patient "and all others who find themselves in need because of occupational handicaps." He advocated development of "a comprehensive plan for meeting the problems of physical restoration, retraining and readjustment of disabled persons—to enable them to return to a position of usefulness in the community, to regain their independence through productive work, to transfer them from the public assistance rolls to the payrolls of industry."

E. T. Fagan, chairman of the rehabilitation committee of the Council of Tuberculosis Associations of Greater New York, was the second speaker. He described the rôle of private agencies, and stressed existing needs in New York for free or low cost dental care and more adequate hygiene facilities.

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Postgraduate Courses at New York University

Four hundred medical veterans, one third of whom are alumni, have been enrolled in the Post-Graduate Division of New York University College of Medicine that was organized last September, according to an announcement by Dr. Clarence de la Chapelle, director of the division. The postgraduate courses are taught in the New York University divisions of Bellevue Hospital or at other hospitals affiliated with the university. It is expected that a peak registration of five hundred or more discharged medical officers will be reached this year.

Several types of retraining courses are offered in the Post-Graduate Division. Refresher courses, of which the general review course is completely booked until July 1, are mainly channeled through the Fourth Medical Division of Bellevue Hospital, which became affiliated with the Medical College more than a year ago.

The review type course is intended for officers who have been or will be entering general practice and who may be unable to continue in their fields while in military service. These courses, which include practically every branch of medicine, range from two weeks to a year in duration. To accommodate officers who seek admission at various times as they are released from service, the courses are in continuous operation and may be started at frequent intervals.

The schedule has been so arranged that a physician may review only one or two subjects or a large number,

if he desires, without waiting long periods between courses.

A second group of courses is designed for physicians whose postgraduate training was interrupted and who wish to complete requirements for certification by the specialty boards; also for those who have completed an internship or part or all of a residency. These courses vary in length from one to three years and include the basic sciences as an integral part of the training.

Most important from the point of view of the nation's future medical care, according to Dr. de la Chapelle, are members of the intern group whose medical education and internship were curtailed by the accelerated wartime program and who received too little medical training. It is planned to give this group a year or so in a hospital as interns or externs to prepare for practice or possibly a residency.

To date, more than one thousand returning medical officers, more than half of whom are alumni of the University's College of Medicine, have sought advice from the staff as to courses and available hospital and school appointments. Specialties which alumni in the armed forces expressed a desire to study were in order of preference: internal medicine, surgery, obstetrics and gynecology, pediatrics, pathology, radiology, neuropsychiatry, ophthalmology, orthopedic surgery, dermatology and syphilology, urology.

This program of retraining courses and postgraduate studies has been made possible by a grant of \$50,000 a year, for three years, from the W. K. Kellogg Foundation.

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Business Support of Research in Tropical Medicine Urged

At the sixth annual meeting of the American Foundation for Tropical Medicine, held in New York on February 7th, the importance to American business, seeking expansion in world markets, of continued support for education and research in tropical diseases was emphasized. An advisory committee of Foundation members to work with industry on common problems concerning tropical medicine was appointed. Colonel Thomas T. Mackie, president of the Foundation, said that this group would be prepared to survey tropical regions in which business interests might wish to expand and to aid in setting up methods for disease control. Another speaker was Brigadier General James S. Simmons, chief of preventive medicine, Surgeon General's Office, and recently appointed dean of the Harvard University School of Public Health. He said that the maintenance of health in the tropics was an important factor in world trade, and that continued work in the field of tropical medicine was required. The Foundation's Richard Pearson Strong Palladi-

um Medal, with an honorarium of \$500, both gifts of the Winthrop Chemical Company, Inc., were presented to Brigadier General George Russell Callender, Commandant of the Medical Department Professional Service Schools, Washington, D.C. The citation stated that under Brigadier General Callender's supervision and guidance, research in the school "contributed directly to the achievement of the lowest sick-rate of any army in the history of war. His initiative and effort were largely responsible for the creation of the course in tropical medicine and for the development of extensive research activities at the Army Medical School in 1941 before Pearl Harbor. As a result of the typhus vaccine developed in 1942 not a single United States soldier died of epidemic typhus fever."

Colonel Mackie, who was executive officer of the United States of America Typhus Commission in India, Burma and China, reported that since its organization in 1940, the Foundation had dispersed \$188,000 in grants to support teaching and research in tropical medicine, the major recipient being Tulane University, which maintained the only graduate school of tropical medicine in the United States.

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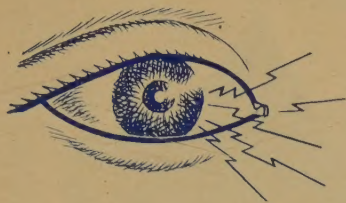
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